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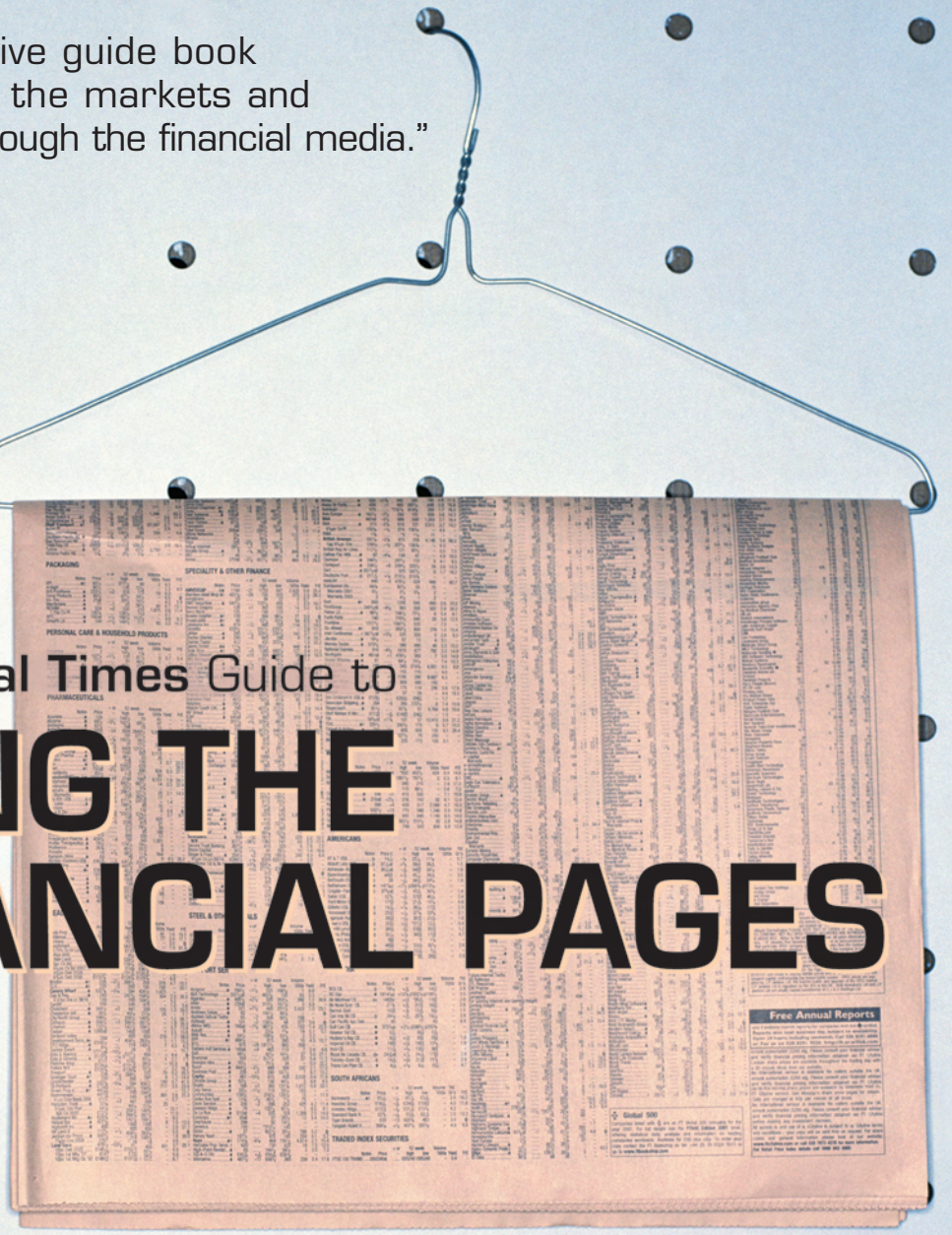

The **Financial Times** Guide to

USING THE FINANCIAL PAGES

Fifth Edition

ROMESH VAITILINGAM

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GUIDE TO

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Foreword

Some years ago, television and radio news bulletins began to include a reference to two or three financial indicators – the FTSE 100 index, the dollar/euro or sterling/dollar exchange rate, perhaps the oil price.

For many viewers and listeners, this bald market data must be at best boring – an interruption in the flow of "real news" – at worst confusing. The numbers are, almost literally, a turn-off.

Yet, properly explained and set in context, those figures and the markets that generate them are the key to interpreting many of the events covered in the rest of the bulletin. Fuel shortages in Europe, protests by US manufacturing unions, even record transfer deals between the world's top soccer clubs: the explanations for these and many other stories are found in financial markets and economic statistics.

The power of markets is illustrated by the now-famous observation by one of President Bill Clinton's aides: "I used to think that if there was reincarnation, I wanted to come back as the president or the pope. But now I want to be the bond market: you can intimidate everybody."

Every day, the *Financial Times* tries to put flesh on the financial markets and to trace the links between cold data and hot news. Making the markets intelligible and exciting is what business and financial journalists are paid to do. But the figures remain the bedrock of the financial and corporate news. Readers will continue to have an appetite for the raw statistics, whether online or in print, because – with the help of the FT's analysis and comment – they can use those data to construct their own explanations, models and projections for company performance, government expenditure and international trade.

There are three main reasons why it is becoming more important to know how to interpret and explain such information.

The first is technology. Much data is now accessible through the internet directly from its source. Knowing why particular data are significant is the best way to profit from this unmediated information.

The second reason, linked to the first, is globalisation. The metaphorical flap of the butterfly's wing that causes a tornado on the other side of the earth has become reality in financial markets. Knowing why a mishap in one market can trigger cataclysm in another is an important step in understanding this borderless world.

The third reason is the increasing sophistication of markets. Taking advantage of technology and globalisation, investors with the biggest appetite for risk have moved beyond investment in easily understood securities – bonds or equities, for instance – into derivatives

and other more exotic instruments. It may not be important for ordinary investors to know how to trade such instruments, but it is important for them to know how their use affects underlying markets.

These may seem like grandiose reasons for welcoming the fifth edition of the *Financial Times Guide to Using the Financial Pages* but there are also some good, down-to-earth ones. News organisations are raising their game, both on the web and in print. In the FT, we now use more charts and illustrations to throw light on trends in the daily statistical tables. Online, at www.ft.com, it is easier than ever to analyse a company, plot a share price, or explore a mutual fund's performance, with tools that used to be available only to professional investors, corporate treasurers and their advisers. Overall, we provide the most comprehensive and consistent global coverage of data and financial markets. This guide helps explain how to get the most out of these features.

Above all, however, this book provides an indispensable road map to the links between information in the financial pages and the workings of businesses and economies. I warmly recommend it.

Lionel Barber
Editor, *Financial Times*

Introduction

Money and the financial markets, as reflected in the television or radio news or the financial pages of a newspaper such as the *Financial Times*, may often seem to be a different world, something well beyond the experience of most people. But the global movement of capital, the constant shifting of what are often vast amounts of money, does have a connection with our daily lives. Everyone has some contact with the financial system: through having a bank account; through contributing to a pension fund; through buying an insurance or life assurance policy; or through taking out a mortgage or running up an overdraft. And despite its appearance as a foreign country accessible to only a favoured few, and dealing in a baffling language of numbers and jargon, its basic workings are fairly simple to grasp.

The markets are simply a huge clearing house where the different financial needs of individuals, companies and governments can be brought together and matched through appropriate pricing mechanisms. They might be actual places or they might be networks of computers. Either way, they address two fundamental needs: what is variously known as saving, lending or investing – the use of funds excess to spending requirements to secure a return; and borrowing – the demand for funds over and above those already owned, to put to work in various ways.

The players in the financial markets and in the wider economy can be classified into four broad groups:

- **Investors** who have money to spare to spend on assets and, indirectly, lend it to the issuers of those assets. This includes individual investors, though nowadays the bulk of investment is done by large investing institutions such as pension funds and insurance companies.
- **Companies** that want to borrow money in order to buy capital goods or increase the scale of their business.
- **Financial institutions** (banks, building societies, brokers, dealers, marketmakers, etc.), which act as intermediaries, bringing together the borrowers and lenders in various marketplaces.
- **Governments**, which act as both borrowers and lenders, but also regulate the markets and attempt to monitor and influence the state of the economy through fiscal and monetary policy and various "supply-side" measures.

The role and behaviour of each of these players are examined in the first four chapters of this book. The second part of the book looks at the different markets in which they operate: the stock markets, bond markets, foreign exchange and money markets, futures and options markets and commodity markets. Each chapter takes the relevant charts and tables from the *Financial Times* (and in many cases, the more detailed information available on the ft.com website) and explains how they work, what their significance is, and how they might be read and employed by private individuals, professional investors or business managers. The third part broadens the picture, examining the UK, European and world economies, and the effects that economic indicators have on the financial markets.

The final chapters of the book move beyond the financial pages to explore other sources of financial information: the variety of newspapers, magazines, newsletters and other publications, and how to read between the lines of their financial reporting; the new electronic markets and online sources of financial information; and how to use company reports to find the main performance ratios. Readers who are unfamiliar with the *Financial Times* may want to start here: Chapter 20 gives a brief synopsis of how the contents of the UK edition are typically arranged. Lastly, two appendices reiterate the key ratios for easy reference and list the constituent companies of the leading market indices in the United Kingdom and the United States.

This book is intended for anyone who reads or needs to read the financial pages, whether in a newspaper or online. It aims to provide a simple guide to understanding the statistics and the language of modern finance. Right from the first chapter, tables of figures with explanations are introduced to accustom the reader to the ease with which the numbers (as well as the reports and comments) can be interpreted and used with just a little background.

Much of the importance of the statistics lies in the ratios between numbers rather than in the actual numbers themselves. It is the relationship between the figures, both across companies, industries, sectors and economies, and over time that is critical. It is these ratios that investors, companies and the finance types that "make" the markets pore over to identify past patterns, future trends, and present opportunities and dangers.

The tables and charts of the financial pages are reference points, published every day as a snapshot of the state of the markets. But the markets themselves are dynamic, constantly in flux and, in some cases, trading 24 hours a day and across the globe. For readers needing immediate, real-time data, there are the more sophisticated sources of financial information of the internet age, web-based services providing information and analysis (such as ft.com) as well as online trading facilities and other financial intermediaries. These are discussed in Chapter 19.

Nevertheless, *Financial Times* figures are a globally used reference point and the newspaper plays an important institutional role in the financial markets. It has pioneered such industry standards as the FTSE 100 index (known as the "Footsie"), used widely as an indicator of the state of the UK stock market, and as a benchmark for the performance of investors' asset portfolios. Furthermore, its pages fulfil the obligation of unit trusts to publish data on the value of their funds.

Although this is the *Financial Times* guide to using the financial pages, the map it provides to understanding that newspaper's financial and economic reports, comments, tables and charts is equally applicable to other papers, and indeed to other media. The newspaper is merely the most detailed and widely used of the non-specialised media. Indeed, other papers frequently provide information on many of the leading indicators that the *Financial Times* has developed, such as the Footsie and its derivative products.

Before turning to the markets and their statistical analysis, some basic and recurring mathematical concepts might be valuable:

- **Average**: a single number used to represent a set of numbers. It can be calculated variously as: a mode, the number that occurs most frequently in a set of numbers; a median, the number with 50 per cent of the rest lying below it and 50 per cent above, or if there is an even quantity of numbers, the average of the middle two; the arithmetic mean, the total sum of the numbers divided by the quantity of them; and the geometric mean, the figure that derives from multiplying the numbers together and taking their nth root, where n is the quantity of numbers.
- **Index**: a number used to represent the changes in a set of values between a base year and the present. Index numbers blend many different ingredients into a single index, and measure changes in it by changes in its parts. This involves giving appropriate weighting to the components according to their importance in what is being measured. A weighted average is usually calculated as an arithmetic mean, either using the same weights throughout (a base-weighted index) or adjusting the weights as the relative importance of different components changes (a current-weighted index). Base-weighted indices may have the base shifted periodically.
- **Inverse and positive relationship**: the connection between two numbers. Numbers with an inverse relationship move in opposite directions; those with a positive relationship move together. This is the mathematical explanation of why, for example, bond prices and yields move in opposite ways; if x is equal to y divided by z, and y is constant, then as x rises, z falls or vice versa. But if x or z is constant, x and y or z and y will rise or fall together. The two pairs are in a positive relationship.
- **Percentage**: the proportion that one number represents of another or the change in a number from one period to another. To calculate the proportion or percentage of y that x represents (whether x is another number or the difference between one number over two periods), x is divided by y. The result will be a fraction of 1, and to convert it into a percentage figure, it is simply multiplied by 100. Movements of a percentage figure might be mentioned in terms of points (one point is 1 per cent) or basis points (one basis point is one hundredth of 1 per cent). Percentage points or basis points are different from percentage changes.

With these simple tools and developments of them explained in the text, the reader should be well equipped to negotiate the figures of the *Financial Times* financial pages, analysed in what follows.

All tables and figures are reproduced by kind permission of the *Financial Times*. Thanks go to Private Eye for permission to reproduce the cartoon by Nick Whitmore on p. xviii. I would like to thank those members of staff at the *Financial Times* who have contributed their time and assistance in the preparation of this book over its five editions, particularly Adrian Dicks, Emma Tucker, Keith Fray and Simon Briscoe. I would also like to thank all the staff (past and present) who have worked on the book at Pearson Education, notably Mark Allin, Sally Green, Helen Pilgrim, Richard Stagg and Linda Dhondy. Thanks also to Stephen Eckett of Global-Investor.com for advice, to Brian Leitch for research assistance, and especially to Annemarie Caracciolo and Skanda Vaitilingam.

"Heard the latest?"

PART 1

Identifying the players

“To avoid having all your eggs in the wrong basket at the wrong time,

every investor should diversify.”

Sir John Templeton

“Remember that time is money.”

Benjamin Franklin

1

Investors

- **Buying assets** – the important considerations: risk and return; liquidity and time; portfolio diversification; hedging and speculation
- **Comparing investments** – how to make comparisons between the prospects for different assets: the markets on which they are traded; asset prices and the role of interest rates
- **Using the financial pages** – how to navigate the markets: stock markets; bond markets; commodity markets; derivatives markets; foreign exchange markets; money markets; managed funds

Most people have a weekly or monthly income – remuneration for the work they put in at their job. Once their basic needs (food, drink, clothing, accommodation) are taken care of, the choices for what they do with what is left over, if anything, are essentially two. They can spend it on more "luxurious" items, such as holidays, music and books. This, together with the basic needs expenditure, is known as consumption. Alternatively, they can save it for future spending by them or their heirs, as a precaution against unanticipated future needs, or to generate future income.

Investors are people who have a surplus of money from their income that they want to save for any of these reasons. They can do this by keeping it in cash, or by putting it in a bank account or building society, the traditional meaning of savings. Alternatively, they can buy something that they expect at least to maintain its value, that might provide a flow of income and that can be resold when needed. Any of these is an asset. How investors decide on the assets that they buy and own is the subject of this chapter.

Buying assets

Assets come in many shapes and forms: cash, bank and building society deposits, premium bonds, securities (that is, ordinary shares in a company or gilt-edged stocks, bonds issued by the government), life assurance policies, works of art and antiques, gold or foreign currencies, and houses and flats. Each type of asset has different characteristics, and the investor's preferences between those characteristics will determine which assets are bought.

The first characteristic of an asset that an investor might consider is its annual return: does ownership of it entitle the investor to receive any further income and, if so, how much? Obviously, for hard cash, the answer is no, but if that cash is placed in a building society account, the investor will earn monthly, quarterly or annual interest at a specified rate. Similarly, a premium bond does not pay its owner any interest (though it offers the regular chance of winning a prize), but a gilt-edged bond will pay a guaranteed fixed amount each year. And ownership of ordinary shares (equities) will generally mean that the investor gets a dividend, a slice of the profits made by the company over a 6- or 12-month period.

Investors typically consider the return on an asset as an annual percentage of its value. This is the rate of return or yield, and is calculated by dividing the return by the asset's value. For example, if a building society adds £5 to every £100 deposited with it for a year, the return is that £5 and the rate of return is 5 per cent. In this case, of course, it is known as the interest rate. Similarly, the yield on fixed interest securities like gilts is the fixed amount each pays, known as the coupon, as a percentage of the current price quoted in the bond market.

The basic rate of RETURN on an asset is the income received as a percentage of the price paid for it

The basic rate of return on a share, the dividend yield, is calculated in a similar way: the dividend paid by the company is divided by the price of the share as quoted on the stock market. Of course, unlike bonds or indeed bank deposits, the dividend payment is by no means guaranteed. The company may, for whatever reason, decide not to pay out a dividend. But with shares, there is another way of receiving a return and that is the second important characteristic of an asset, its potential for capital appreciation.

Capital appreciation or capital growth is an increase in the value of invested money. For example, money in building society and some bank accounts earns interest, but that is the only way in which it can gain in value. In fact, if inflation is high, higher than the rate of interest, money will lose value in terms of its purchasing power, that is, how many goods can be bought with it. Gold and houses, in contrast, do not earn interest, but they can appreciate in value, their prices can rise. When inflation strikes, gold has often been a good asset to protect or hedge against loss of purchasing power. Houses, too, generally maintain their real value at these times.

Ordinary shares possess both characteristics: they can earn a dividend as well as appreciate in value. A share bought at a price of 100 pence might receive a dividend of 5 pence for a year, and it might also increase in price to 110 pence. In this case, the profit or capital gain is 10 pence, the total return on the asset is 15 pence and the overall rate of return is 15 per cent. Of course, the share might also fall in price, in which case the return might be negative. In this example, if the price dropped to 90 pence, the capital loss is 10 pence, and the share is said to have depreciated in value by 10 per cent. Because of the dividend, the overall loss is only 5 pence, but this still means that the overall rate of return is negative at minus 5 per cent.

The TOTAL RETURN on an asset comprises income plus capital growth; for a share, TOTAL RETURN is the dividend yield plus any change in its market price

Risk and return

The possibility of loss on an asset is the third characteristic an investor will look at. Different assets have different degrees of risk, and these usually relate to their potential for appreciation or depreciation. Bank deposits, for example, cannot appreciate or depreciate in price and, hence, are virtually risk-free: their level remains the same apart from the periodic addition of interest. Unless the bank goes under, a rather rare occurrence nowadays, the investor's money is safe. The interest rate may drop so that the annual return is lower, but the basic capital is protected from any loss except for the loss of value caused by inflation.

Gilt-edged securities, in contrast, can fall in value. However, since they are sold and therefore backed by the government, they do still guarantee to pay that fixed amount, the coupon. But ordinary shares carry the risks of both falling prices and falling yields. Not only might declining profits lead to share prices declining in the market, but they might also lead to a company deciding it cannot afford to pay as big a dividend as a

proportion of the share price, or even to pay one at all. Thus, while equities offer attractive potential rewards and often a relatively safe haven from inflation, the uncertainty over the future movements of their prices makes them a risky proposition.

Clearly, some assets are riskier than others, and some offer potentially better returns, both in terms of yield and capital growth. These characteristics of risk and return that all assets possess are intimately related, and this relationship is the foundation of investment decision-making. Portfolio theory, the body of ideas that attempts to explain why investors select and organise their assets in portfolios in the way they do, has at its core the connection between risk and return, between safety and yield. And all investors should ask themselves the question: how much of my capital am I prepared to risk on an uncertain future, and how much should I ensure gets a safe, solid return?

Portfolio theory can provide a guide to making these kinds of decision, suggesting that the greater the riskiness of an asset, the greater the potential return. If an asset like a bank deposit earns a fairly certain yield, that yield will be lower than the uncertain return on an asset like an ordinary share. The owner of the riskier asset is compensated for taking on greater risk by the possibility of much higher rewards. The appropriate aphorism to encapsulate this concept might be: "Nothing ventured, nothing gained".

In practice, this risk/return relationship appears to be true: the yield on a government bond is usually more than the interest rate on a bank deposit while the return on a share can be far more than both. While the dividend yield on shares is usually low compared with gilt yields, the potential for capital gain can more than make up for it. At the same time, the risk of loss is higher than for either the bond or the bank deposit. Thus, there is a trade-off between risk and return, and the investor will choose assets on the basis of his or her attitude to risk. Risk aversion means that the primary consideration is safety: the investor will prefer owning assets that cannot fall in price. Ideally, these assets should also avoid the possibility of falling in value, but unfortunately the assets that best do that, gold and shares, run the risk of price falls. It is also desirable for the safer assets to offer a reasonable rate of return, but again a relatively poor yield may be the cost of safety. The investor can merely select the best return among the assets that carry the maximum level of risk he or she is prepared to take on.

Different assets have different degrees of RISK; generally, the more RISK of loss, the higher the potential return

Liquidity and time

Having weighed up the risk/return trade-off, the investor will probably want to consider how easy it will be to convert an asset into ready money in the event that it is needed. This is known as the liquidity of an asset, its fourth characteristic, and it too relates to the return on an asset. Generally, the more liquid an asset is, the lower its return. The easier it is for an investor to give up ownership of an asset without undue loss, the higher the price paid in terms of forgone return. Notes and coins, for example, the most liquid of assets, earn no interest and do not appreciate in value.

Liquidity is also used in a slightly different sense as a term to describe the nature of the markets in which assets are bought and sold. An asset that is in a liquid market can be bought or sold in a substantial quantity without the transaction itself affecting its price. The most liquid markets are those with a large amount of trading, a high turnover of assets. These generally include the currency and gilt markets, discussed in detail in Chapters 11 and 12.

LIQUIDITY is the ease with which an asset can be converted into cash; the more LIQUID an asset, the lower its return

Asset liquidity and asset values are also affected by time, and this time value might be called an asset's fifth characteristic. For example, the longer money is tied up in a bank account, the more illiquid it is, and the higher the return it earns. Because of uncertainty about the future, especially about inflation, money today is worth more than money tomorrow. To bring their values into balance, and to encourage saving/investing rather than spending, the longer money is unavailable in the present, the more it needs to be rewarded. In addition, since the returns on other assets might change for the better over that period of time, the investor receives compensation for being unable to enjoy them. This is the second aphorism of portfolio theory: "Time is money".

Another example in which time value affects asset value is the time to maturity of an asset with a finite life, such as a gilt. The nearer a gilt is to its redemption date (the time that the government will redeem it for its face value), the more likely it is to be priced at or close to its redemption value; the further out it is, the more uncertainty and time value come into play and the further the price can be from the gilt's redemption value. In the latter case, depending on investor expectations about the future, the price might be at a premium to (above) the redemption price or at a discount (below).

With other assets as well as gilts, uncertainty, expectations and time all combine to influence their risk/return characteristics. The interaction of these factors can have dramatic effects on asset prices, and it is important for investors to understand them when evaluating an asset's prospects for yield and capital appreciation.

TIME has an important effect on asset values: because of uncertainty, money today is worth more than money tomorrow

Portfolio diversification

In selecting an asset, an investor will look not only at its own various characteristics, but also at those of other assets he or she owns or intends to purchase. The whole collection of assets an investor owns is known as a portfolio, and the risk/return relationship of any given asset can be tempered by adding assets with different risk/return characteristics to the total portfolio of assets. For example, a portfolio comprising only cash in a bank

account offers a safe but unspectacular return, while a portfolio made up solely of shares might perform very well but may also fall dramatically in value.

A portfolio that contains a combination of stock and cash, say with money allocated 50/50 between the two, provides a risk/return trade-off somewhere in between. In the extreme case where share values fall to zero, the total portfolio still maintains half of its value, in contrast with both an all-stock portfolio, which becomes worthless, and an all-cash portfolio, which holds its value. At the same time, if shares double in price, the total portfolio only makes half the profits of the all-stock portfolio, but still significantly outperforms the all-cash portfolio.

With investment objectives that seek a certain degree of safety, but also some potential of higher rewards, it makes sense to own a balanced portfolio, a range of different assets with varying degrees of risk and potential returns. These might include shares, gilts and cash plus some of the more exotic assets discussed in later chapters, such as options and Eurobonds. This is the principle of portfolio diversification, and the third aphorism of investment decision-making: "Don't put all your eggs in one basket".

The different risk/return profiles of assets in a portfolio combine to generate its overall risk and potential return; the principle of PORTFOLIO DIVERSIFICATION demands a balance of stocks, bonds, cash and/or other assets

Hedging and speculation

When weighing up which assets to buy or which to hold, investors will keep returning to the degree of risk involved. The more risk-averse ones will want as much protection of their assets' value as possible and once they have taken the first step into the unknown of investing in assets more uncertain and riskier than a building society deposit, there are various means of achieving that.

The basic strategy is called hedging, and it is a version of the strategy of portfolio diversification: the investor holds two or more assets whose risk/return characteristics to some degree offset one another. One example might be simply to hold a low-risk and low but solid return asset for every high-risk and high potential reward asset. A more precise way to hedge is to use derivatives, the range of securities whose price depends on or derives from the price of an underlying security. A put option, for example, gives its owner the right, but not the obligation, to sell a share at a fixed price (the striking price) on or by a certain date. Owning one with the share itself means that the investor's potential capital loss is limited to the loss implied should the share fall to the striking price. If it falls further, the investor can use the option and sell the share at the striking price.

On the other side of the hedger's trading is the speculator, someone who is prepared to take on the extra risk that the hedger wants to avoid. Speculators are in the markets for the express purpose of making as large a profit as possible. They typically believe that they know the future prospects for asset prices better than the majority of investors, and

hence are prepared to take bigger risks. The main characteristics of speculators are that they are prepared to leave themselves unprotected from possibly adverse market moves, and that they like to trade often and in substantial amounts. This behaviour is beneficial to other investors since it allows the more efficient management and transference of risk, and it gives the market greater liquidity.

With a put option, the speculator aims to make a profit from the premium paid by the hedger. He or she anticipates that the price of the underlying share will not fall to its striking price, and hence that the hedger will not need to exercise it. Of course, the risk taken on is substantial since, if the share price does fall below the striking price, the potential loss is unlimited: the speculator is obliged to buy the share at the striking price and can sell it only at whatever price it has fallen to.

The nature of the derivatives, or futures and options markets is discussed in more detail in Chapters 13 and 14. For the moment, it is merely important to note that these derivatives can be used for the complementary aims of hedging and speculation across a wide range of markets, including future movements of interest rates, exchange rates, commodity prices and security prices.

Both hedgers and speculators "go long" in the assets they expect to increase in value, that is, quite simply, that they invest in them. But they can also "go short": this means that they expect an asset to fall in value, and hence sell it on the expectation of buying it back in the future and realising a capital gain. It is quite possible for investors to short assets they do not own by borrowing them with the intention of returning them once the expected profits have been made. Of course, this is usually a highly speculative activity since the shorted assets may rise in value. It may be used by hedgers when the shorted asset offsets a long asset, for example, where selling a future (a contract to buy a certain asset at a fixed price on a fixed future date) protects against a fall in the price of the underlying asset over that period.

Investors, whether hedgers or speculators, who expect a rise in a particular asset price or in the market as a whole are known as bulls, while those who are pessimistic about future price prospects are known as bears. And it is quite possible to be bullish and bearish at the same time if contemplating contrasting assets or markets. For example, risk-averse investors wary of UK stock market prospects might view gilts as good buys, while ambitious speculators might short the pound or the dollar and go long in gold or property.

Comparing investments

It is important to clarify one potential source of confusion early on and that is the use of the words "investor" and "investment". Popularly, and especially in financial markets, an investment is an asset purchased by an investor with a view to making money, either through its yield or its appreciation in price. But this kind of investment involves only a transfer of ownership. No new spending has taken place: in the language of economics, the "investor" is actually saving. It might be better called financial investment.

Economists, by way of contrast, define investment as spending by companies or the government on capital goods: new factories or machinery or housing or roads or computer networks. This is capital investment. Generally, it is funded by borrowing from savers, perhaps through the issue of stocks or bonds. Thus, investment in this sense is the other side of the market from saving; it is borrowing rather than lending, spending rather than saving.

The financial pages of a newspaper may well use the words in both senses, though generally they will mean financial investment. Usually, though, the context will make it quite clear which is intended. In each case, the cost of the investment is determined in the markets for assets. The price of a stock or bond is, on the one hand, what an investor will have to pay to own it; on the other hand, it is what a company or government can expect to receive for the issue of a similar security.

Markets

Assets are bought and sold in markets, but what are these markets exactly? Essentially, they are institutions that allow buyers and sellers to trade assets with one another through the discovery of prices with which both parties are satisfied. They might be physical places where traders meet to bargain, but in an age of technology they do not need to be: generally, nowadays, they operate through electronic networks. Open outcry is the term for an actual gathering of traders offering prices at which they are prepared to buy and sell. But a very similar process is happening when they list their desired prices on the internet.

In each case, what is taking place is a form of auction. For example, a trader might have ten lots of an asset to sell. If there are too many or too few buyers at his or her suggested price (more or less than ten), the trader will lower or raise the price until there are exactly ten buyers. In effect, investors wishing to buy an asset are looking for sellers offering it at a price they find acceptable; sellers are doing the reverse. If neither side finds a counterparty willing to trade at that price, the buyers will raise the price they are prepared to pay, while the sellers will lower their acceptable price. Eventually, a compromise price is reached, and that becomes the current market price.

In the language of economics, this process is the balancing of demand and supply. The price of an asset moves to the level where demand and supply are equal. And since demand and supply continually shift with the changing patterns of investors' objectives and expectations, the price is continually moving to keep them in balance. In this environment of constant flux, it should, in principle, be possible for a seller to extract an excessive price from an unwary buyer if that buyer is kept unaware of the market price. Hence, another angle on the nature of a market is that it is a means for providing information. The more widely available that information, the better that market will operate.

Aggregating from the market for an individual asset produces a market in the recognised sense, an institution providing and generating prices for a range of assets with similar properties, and typically with an aggregate indication of which way prices are

moving. In much financial reporting this market is personified as having an opinion or sentiment. What this means is that the bulk of the traders in a market consider it to be moving in a particular direction: if buyers overwhelm sellers, it will be up, while if more traders are trying to leave the market than to come in, it will be down.

Financial markets can be classified in different ways. One basic distinction is between primary and secondary markets: in the former, new money flows from lenders to borrowers as companies and governments seek more funds; in the latter, investors buy and sell existing assets among themselves. The existence of the secondary market is generally considered to be essential for a good primary market. The more liquid the secondary market, the easier it should be to raise capital in the primary market by persuading investors to take on new assets. The secondary market allows them to sell, should they decide it is not an asset they want to hold.

Markets may also be classified by whether or not they are organised, that is, whether or not there is an overarching institution setting a framework of rules and ready to honour the contracts of a failed counterparty. For example, the London Stock Exchange is an organised market while the over-the-counter derivatives market is not. Similarly, markets might be physical places like the New York Stock Exchange, screen-based computer networks like Nasdaq, or networks of telephones and electronic communication, such as those between the speculators and traders of foreign currencies.

And, of course, markets can be classified by the assets that are traded on them: stocks, bonds, derivatives, currencies, commodities and so on. Although these are all distinct markets, and the analysis in later chapters examines them each separately, there are very strong connections between them, connections that grow stronger as increasing globalisation and improved technology allow better flows of information. Investors do not simply choose one category of asset – they can select a mix. This means they can constantly compare the potential returns (yields and price changes) on a variety of assets. Hence, the markets are all linked by the relative prices of assets traded on them, and by the most important price of all, the rate of interest.

Prices and interest rates

Interest rates are prices for the use of money. An investor holding cash rather than depositing it in an interest-bearing bank account is paying a price, the forgone interest. Once the money is deposited, it is the bank that pays the price for the funds it can now use, again the interest payable on that account. Lastly, when the bank lends the money to a company, the company is paying a price for being able to borrow – the interest the bank charges for loans, which is normally higher than the rate it pays the investor, so it can make a profit.

At any one time, there are different rates of interest payable on different forms of money. For example, money deposited long-term receives more interest than a short-term deposit. Similarly, money loaned to a risky enterprise earns more than that in a risk-free loan. Thus, another view of the rate of interest is as the price of risk: the greater the risk, the higher the price.

All of these rates are intimately related: if one changes, they all do. This works by the same process as the changing prices of assets, that is, the rebalancing of demand and supply. If, for example, the rate of interest payable on short-term deposits were to rise, money in long-term deposits would flow into short-term deposits. The sellers or suppliers of long-term deposits would be fewer, and to attract them back, the price, the interest rate, would need to rise in line with the short-term rate.

A rise in interest rates has a beneficial effect on investors with cash deposits in interest-bearing accounts. On the other side of the market though, the buyers of money or the borrowers face increased costs since the price has gone up. This would be the experience of companies borrowing to finance new investment, or of homeowners with monthly mortgage payments to make. But a change in interest rates also has effects on the prices of other assets, notably bond and gilt prices, equity prices and the prices of currencies.

The relationship between bond prices and interest rates is an inverse one: as one goes up, the other goes down. This is because a bond pays a fixed amount which, when calculated as a percentage of its market price, is the yield, equivalent to the rate of interest. If rates go up, the relative attractiveness of a deposit account over a bond increases. Since the coupon is fixed, for the yield on the bond to rise to offer an interest return once again comparable to that on the deposit account, the price of the bond must fall.

The relationship between bond prices and interest rates is simple and certain; that between equity prices and interest rates is more complicated and less predictable. As with bonds, the relative dividend yield of shares will be less attractive than the interest rate on a deposit account if interest rates rise. The yield will also be less attractive than that on the bond with its adjusted price. Furthermore, the yield may become even less desirable because the rate rise will raise the company's interest costs, reduce its profitability and perhaps lead it to cut the dividend. However, much of the return sought on shares is from their potential for capital growth and an interest rate rise need not affect that.

Interest rates tend to rise and fall in line with the level of economic activity. In a recession and the early stages of a recovery, they will generally be low and falling to encourage borrowing, while in the subsequent boom, they will rise as the demand for money exceeds the supply. Thus, a recession should be good for bond prices and a boom less positive. For shares, the rising interest rates of a boom might be bad, but the rising economy should be advantageous because of its opportunities for enhanced profitability. In the long term, the prospects for the latter tend to have more of an influence on share prices than interest rates.

The last significant market influenced by interest rates is that for currencies. Exchange rates are in part determined by the relative rates across countries. If these change, by one country perhaps raising its rates, deposits in that country will become more attractive. To make the deposits, its currency will be bought and others sold, pushing up its price in terms of the other currencies. The higher value of a country's currency might also make its stocks and bonds more attractive relative to other international assets. Of course, a higher currency value makes exports more expensive, weakening the country's competitive position and potentially reducing exporters' profits. This may lead to equity price declines.

Each of these effects of changed interest rates could conceivably come before the change is actually implemented. This is because of the expectations of investors: if a rate rise is anticipated, bond owners will probably sell in the expectation of being able to buy the bonds back at the new lower price. This will cause prices to fall automatically because of surplus supply. Markets often discount the future in this way, building into the prices of the assets traded on them all past, present and prospective information on their future values. Expectations of company profits can influence the current price of a share just as much as actual announced profits, sometimes more so.

Using the financial pages

How do all these concepts work out in practice in the financial pages of a newspaper? And how does the investor check on the prices of assets owned or considered for purchase? The second part of this book covers the entire range of market information carried by the *Financial Times* (as well as a wealth of additional data available on the ft.com website), providing details on the background and operations of the various markets as well as a guide to how to read the daily charts and tables.

Saturday's newspaper is the issue that focuses most on the interests of the individual investor in its personal finance pages, FT Money. One table, for example, provides details on the best options available for depositing money in various kinds of accounts at major banks and building societies. The table lists the names of the financial institutions and accounts, telephone numbers, the notice periods for withdrawing funds from the account, the minimum deposits, and the interest rates and frequency at which they are paid.

Neighbouring tables provide details for a variety of mortgages, personal loans, overdrafts and credit cards: the lenders, their telephone numbers, and such key features as the period the quoted rate will last for and the maximum amount that will be lent in the case of mortgages. In a sense, the savings table gives an indication of what is called the opportunity cost of an investment, the benefits lost by not employing the money in its most profitable potential use. These rates of return represent the best use of money invested elsewhere, and, of course, they are relatively risk-free investments as well. When making selections of assets, they serve as valuable benchmarks.

The concept of benchmarks is one that is repeated throughout this book: many of the figures provided by the *Financial Times* fulfil this purpose of enabling both investors and borrowers to make comparisons. This is particularly the case with indices, which provide investors with the guidelines for passive portfolio management. If the objective is to perform as well as, and no worse or better than, the overall stock or bond market, the investor can simply buy the relevant index or mimic it by buying the equities or gilts whose values it measures. The converse of the passive approach is active management where the investor attempts to beat the market by following his or her personal philosophy of what moves asset prices.

Money markets

The money markets are the markets where highly liquid assets like money are traded. The term usually refers to the short-term markets in which financial institutions borrow from and lend to one another, as well as the foreign exchange markets. They are the short-term counterpart of the stock exchange's long-term investment market.

These markets are, for the most part, limited to a small number of institutional participants but they have the potential for enormous effects on the whole financial and economic system, and hence will be of interest to most investors and companies (see Chapter 12). They directly involve the individual investor in a more simple way, through their provision of places to deposit money safely and with a reasonable rate of return, the interest rate.

The *Financial Times* produces a daily table listing these money market trusts and bank accounts as part of its managed funds service, of which Figure 1.1 is a sample extract. Tables and charts with annotations, commentary and explanation like this appear frequently throughout the rest of the book, as a guide to financial pages everywhere, and particularly in the *Financial Times.* They are intended to show how easy the interpretation and use of the financial pages really are once the basic principles and jargon have been understood. This table shows:

- **Account name and amounts**: the first column lists the name of the account and/or the minimum/maximum that needs to be deposited in it to earn the interest rates indicated.
- **Gross**: the second column shows the gross interest rate currently payable on money deposited in the account. Gross simply means the amount payable before deductions, in this case not allowing for deduction of income tax at the basic rate. As with all income, the interest received on an asset of this kind is liable to taxation and tax considerations will have an impact on all of the features of investment decision-making discussed earlier.
- **Net**: the third column indicates the interest rate payable on the account net of income tax at the basic rate. Net is the converse of gross, the amount payable after deductions. Some accounts are tax-exempt (for example, individual savings accounts or ISAs) under particular rules designed to shelter relatively modest savings. For these accounts, the gross and net rates are naturally the same.
- **Gross AER**: the fourth column represents the gross annual equivalent rate. This applies to accounts where the interest is credited in periods more often than once a year. What happens here is that interest earned on the basic amount in the first period itself earns interest in succeeding periods, and so on. Hence the annual equivalent rate is more than the sum of the interest paid in each period. It is instead said to be compounded.
- **Interest credited**: the last column supplies the detail on the frequency at which interest is credited to the account.

Money Market Trusts and Bank Accounts

	Gross	Net	Gross AER	Int Cr
AMC Bank Ltd High Interest Cheque Account				
AMC, Charlton Place, Charlton Road, Andover SP10 1RE 01264 334747				
£5,000+	3.80	3.04	3.854	Qtr
Caf Bank Ltd				
PO Box 289 Kings Hill, West Malling, Kent ME19 4TA 08700 605507				
Caf Gold Balances Under £2 Million	4.20	–	4.27	Qtr
Caf Gold Balances Over £2 Million	4.30	–	4.37	Qtr
Cafcash High Interest Cheque Acc				
Cafcash Balances from £1–250k	3.45	–	3.49	Qtr
Cafcash Balances from £251k – £1m	3.70	–	3.75	Qtr
Cafcash Balances £1m +	3.95	–	4.01	Qtr
Platinum 90 – 90 Day Notice Account				
Cafcash Balances £1 Million – £10 Million	4.40		4.46	Qtr
CBF Church of England Deposit Fund‡				
80 Cheapside, London EC2V 6DZ			020 7489 6010	
Deposit	4.6		4.68	3Mths
Close Brothers Limited – Crystal Account				
10 Crown Place, London EC2A 4FT			020 7655 3407	
7 Days Notice Deposit – £5,000+				
Base Rate Less 0.5%	4.25	3.45	4.30	6Mthly
Money Market Rates available on request				
The COIF Charities Deposit Fund				
80 Cheapside, London EC2V 6DZ			020 7489 6010	
Deposit	4.6		4.68	3Mths
Investec Bank (UK) Ltd				
2 Gresham St, London EC2V 7QP			0845 366 6333	
Direct Reserve:				
£25,000 – £49,999	4.31	3.45	4.40	Yearly
£50,000 – £99,999	4.41	3.53	4.50	Yearly
£100,000 – £249,999	4.65	3.72	4.75	Yearly
£250,000 – £499,999	4.84	3.87	4.95	Yearly
£500,000+	4.94	3.95	5.05	Yearly
Premier Interest Chq Acc (PICA)	3.80	3.04	3.87	Mth
Business Cheque Account	2.00	1.60	2.02	Mth
Premier Tessa–ISA	4.89	–	5.00	Yearly
Premier Cash–ISA	4.89	–	5.00	Yearly
National Westminster Bank Plc				
Waterhouse Sq, 138–142 Holborn, London EC1N 2TH				
Corporate Money Market Account			020 7 427 8254	
£0–£24,999	2.25	1.80	2.27	Qtr
£25,000–£99,999	2.25	1.80	2.27	Qtr
£100,000–£249,999	2.97	2.38	3.00	Qtr
£250,000–£499,999	3.12	2.50	3.16	Qtr
£500,000–£999,999	3.36	2.69	3.40	Qtr
£1,000,000–£1,999,999	3.61	2.89	3.66	Qtr
£2,000,000–£5,000,000	3.94	3.15	4.00	Qtr
euro Corporate Money Market Account			020 7 427 8823	
0 – 24,999	0.10	0.08	0.10	Qtr
25,000 – 99,999	0.10	0.08	0.10	Qtr
0 – 24,999	0.10	0.08	0.10	Mth
100,000 – 249,999	0.25	0.20	0.25	Qtr
25,000 – 99,999	0.10	0.08	0.10	Mth
250,000 – 499,999	0.25	0.20	0.25	Qtr
100,000 – 249,999	0.25	0.20	0.25	Mth
500,000 – 999,999	1.00	0.80	1.00	Qtr
250,000 – 499,999	0.25	0.20	0.25	Mth
500,000 – 999,999	1.00	0.80	1.00	Mth
1,000,000 – 1,999,999	1.25	1.00	1.26	Qtr
2,000,000 +	1.50	1.20	1.51	Qtr
1,000,000 – 1,999,999	1.25	1.00	1.26	Mth
Royal Bank of Scotland plc				
2,000,000 +	1.50	1.20	1.51	Mth
Waterhouse Square 138–142 Holborn London EC1N 2TH				
Royal Bk of Scotland plc Pvte Banking Dep Acc				
42 St. Andrew Square, Edinburgh EH2 2YE 0131 525 1739				
Corporate Money Market Account			020 7 427 8254	
£1,000,000	4.25	3.40	4.33	Mth
£0–£24,999	2.25	1.80	2.27	Qtr
£500,000–£999,999	4.00	3.20	4.07	Mth
£25,000–£99,999	2.25	1.80	2.27	Qtr
£50,000–£499,999	3.80	3.04	3.87	Mth
£100,000–£249,999	2.97	2.38	3.00	Qtr
£25,000–£49,999	3.60	2.88	3.66	Mth
£250,000–£499,999	3.12	2.50	3.16	Qtr
£10,000–£24,999	3.35	2.68	3.40	Mth
£500,000–£999,999	3.36	2.69	3.40	Qtr
£5,000–£9,999	3.10	2.48	3.14	Mth
£1,000,000–£1,999,999	3.61	2.89	3.66	Qtr
Under £5000	2.60	2.08	2.63	Mth
£2,000,000–£5,000,000	3.94	3.15	4.00	Qtr

Gross AER replaces Gross CAR

Account type

Gross interest rate payable

Interest rate net of income tax

Gross annual equivalent rate (gross AER)

Frequency at which interest is credited

Fig. 1.1 Money market trusts and bank accounts

Latest value of the FTSE 100 index of the 100 biggest UK companies by market capitalisation

Latest price for the 30-year US government bond, benchmark for long-term US interest rates

WORLD MARKETS

STOCK MARKETS

	Jul 7	prev	% chg
Dow Jones Ind	**10302.29**	10270.68	+0.31
Nasdaq Comp	**2075.66**	2068.65	+0.34
S&P 500	**1197.87**	1194.94	+0.25
FTSEurofirst300	**1136.12**	1157.21	-1.82
DJ Euro Stoxx 50	**3170.06**	3224.11	-1.68
FTSE 100	**5158.3**	5229.6	-1.36
FTSE All-Share UK	**2579.74**	2615.66	-1.37
CAC 40	**4220.62**	4279.95	-1.39
Xetra Dax	**4530.18**	4615.49	-1.85
Nikkei	**11590.14**	11603.53	-0.12
Hang Seng	**14030.81**	14149.93	-0.84
FTSE Global All-Cp	**302.50**	303.70	-0.40

CURRENCIES

	Jul 7	prev		Jul 7	prev
$ per €	**1.194**	1.192	€ per $	**0.837**	0.838
$ per £	**1.743**	1.756	£ per $	**0.574**	0.569
£ per €	**0.686**	0.679	€ per £	**1.457**	1.474
¥ per $	**112.05**	112.21	¥ per €	**133.8**	133.4
¥ per £	**194.9**	196.6	£ index	**99.0**	100.0
$ index	**96.7**	96.8	€ index	**90.5**	90.2
SFr per €	**1.548**	1.554	SFr per £	**2.256**	2.290

COMMODITIES

	Jul 7	prev	chg
Oil - Brent $ Aug	**59.28**	59.85	-0.57
Oil - WTI $ Aug	**60.73**	61.28	-0.55
Gold $	**423.65**	423.65	nc

INTEREST RATES

	price	yield	chg
US Gov 10 yr	**100.64**	4.05	-0.04
UK Gov 10 yr	**104.51**	4.20	-0.08
Ger Gov 10 yr	**100.52**	3.19	-0.03
Jap Gov 10 yr	**99.65**	1.24	-0.02
US Gov 30 yr	**116.56**	4.30	-0.04
Ger Gov 2 yr	**99.77**	2.12	-0.07
	Jul 7	prev	chg
Fed funds eff	**2.99**	3.27	-0.28
US 3m bills	**3.08**	3.13	-0.05
Euro Libor 3m	**2.11**	2.12	-0.01
UK 3m	**4.59**	4.64	-0.05

Prices are latest for edition.

Change from the previous day's closing value

A quote for the euro in terms of dollars

Benchmark oil prices

A quote for the dollar in terms of pounds sterling

Fig. 1.2 World markets

The early part of this chapter explained how the degree of risk affects the yield, with higher risk indicating higher potential return. Similarly, the time it takes to release money from an account, the notice period, affects its return. For example, savings accounts where the saver/investor is required to give 30 days' notice before withdrawing funds (or be penalised for early withdrawal) pay a higher rate of interest than those that allow immediate access. These tables indicate a third factor that affects return, namely the amount of money put into an asset. Generally, the more money an investor is prepared to tie up, the greater the return.

Major markets

The front page of the *Financial Times* carries a summary of values and changes in a number of key indicators across the broad range of world markets (see Figure 1.2):

- **Stock markets**: equity performance indicators for the US, London, Tokyo, Frankfurt, Paris and Hong Kong exchanges, as well as two indices for Europe and one global index. These are explored in more detail in Chapters 6, 7, 8 and 9.

- **Currencies:** rates for sterling, the euro and the dollar in terms of each other, Swiss francs and yen, as well as the value of sterling, euro and dollar trade-weighted indices. These are the focus of Chapter 12.
- **Commodities:** prices of oil and gold. These are examined further in Chapter 14.
- **Interest rates:** principal international interest rates and bond yields. These are explored in more detail in Chapters 11 and 12.

Saturday's newspaper also features a summary table designed to provide a snapshot of the previous week. Labelled "Money watch", it is carried on the inside back page of the FT Money section (see Figure 1.3). The table includes the latest values (plus comparable values for six months and a year previously) for a range of economic and investment indicators: inflation rates, interest rates, yields, exchange rates and the price of gold. The significance of each of these indicators is discussed in the ensuing chapters.

Money watch

	Latest value	6 mths ago	Year ago
Retail Prices Index ♣ †	**2.9**	3.4	**2.8**
Halifax House Price Indx ✠ †	**5.7**	16.8	**21.5**
Halifax mortgage rate (%)	**6.75**	6.75	**6.25**
Base lending rate (%)	**4.75**	4.75	**4.50**
3-mth interbank mid rate (%)	**$4\frac{11}{16}$**	$4\frac{27}{32}$	**$4\frac{23}{32}$**
10-year gilt yield	**4.19**	4.58	**5.05**
Long gilt/equity yld ratio (%)	**1.38**	1.49	**1.53**
$/£ exchange rate	**1.7714**	1.9212	**1.8277**
€/£ exchange rate	**1.4802**	1.4096	**1.4859**
Gold price ($ per oz)	**428.15**	437.62	**398.00**

✠ All Houses index shown for May. † Annual % change.
♣ RPI for May 2005: 192.0

Fig. 1.3 Money watch

The FT Money section provides an extensive range of articles, tables and charts relating to issues of personal finance and investment. Savers, borrowers and investors of all kinds can find valuable information in its coverage of companies, markets, saving and borrowing, investing for growth and for income, pensions, financial planning and unit trusts and investment trusts. A number of its key tables are examined in later chapters. Others include a table of top annuity rates (financial products that offer guaranteed income for life in return for a lump-sum investment) and a table of prices, coupons and yields for permanent interest-bearing shares (fixed interest securities in building societies).

“Stocks are usually more than just the abstract ‘bundle of returns’ of our models. Behind each holding may be a story of family business, family quarrels, legacies received, divorce settlements, and a host of other considerations. These stories may be too interesting and thereby distract us from the pervasive market forces that should be our principal concern.”

Merton Miller

“I would rather see finance less proud and industry more content.”

Winston Churchill

2

Companies

- **Presenting figures** – how to understand companies' financial statements: profit and loss; balance sheets and cash flows; investment ratios; company financial news
- **Rewarding shareholders** – when companies issue information on their performance: results; dividends
- **Raising finance** – where companies find their sources of capital: equity; debt
- **Contesting corporate control** – the importance of bidders and targets: mergers and acquisitions

Companies are organisations established for some kind of commerce and with a legal identity separate from their owners. The owners are the shareholders who have rights to part of the company's profits, and who usually have limited liability. This means that the liability of the owners for company debts is limited to the amount paid for their shares. They can only lose what they invested.

Companies are often run by people other than the owners, although, in theory at least, the ordinary shareholders control the company. Management is expected to act in the best interests of the owners. Nonetheless, the ordinary shareholders are the last in the queue of claimants on a company: before they can receive anything, the demands of basic operating costs, interest payments and taxation must be met. This is especially evident when a business is wound up, and the owners become the final creditors to receive their stake.

Since this book is concerned with financial markets covered in the *Financial Times*, and in which, in principle, anyone can participate, the companies considered are typically public: this means that their shares are traded in a market, such as the London Stock Exchange for UK companies, and, for the most part, there are no dominant owners. The focus on companies in this chapter is on the features of corporate life over which the company has some direct control: its profitability, its dividend payments, its methods of raising new capital in the primary market, and its means of offence and survival in contests for corporate control. Chapter 5 focuses more on the secondary market, and the interplay of companies and investors in the context of the market for UK equities.

Presenting figures

The primary source for data and analysis of a company is its annual report and accounts. These give all the information on its business and financial affairs, and their publication is one of a company's legal obligations to its shareholders. They describe the current trading conditions of the company, what it has sold (its turnover, sales or revenues) and what it has paid out in wages and salaries, rent, raw materials and other inputs to the production of the goods or services it sells (its costs). They also indicate the company's profits or losses, the state of its assets and liabilities at the start and end of the financial year, and its cash flow.

Detailed explanations of the various financial statements published by a company and the ratios that can be used to analyse and interpret them can be found in numerous publications. This book aims merely to outline some of the relevant figures and ratios. Readers seeking greater depth of analysis are referred to Ciaran Walsh's *Key Management Ratios: How to Analyse, Compare and Control the Figures that Drive Company Value* (Financial Times/Prentice Hall) for a management perspective, and to Wendy McKenzie's *Financial Times Guide to Using and Interpreting Company Accounts* (Financial Times/Prentice Hall) for an investor's perspective. They should also turn to Chapter 18, which explores some of the key ratios from the perspective of both manager and investor over the course of a company's history.

There are essentially three financial statements in a company's annual report: the profit and loss account, the balance sheet and the cash flow statement. From these three can be calculated all the significant ratios needed for companies to practise sound financial management of their business, and for investors to interpret corporate performance relative to the share price and the market more generally.

Profit and loss

A company's profit and loss account is a statement of the final outcome of all its transactions, all revenues and costs during a given period, usually a year. It shows whether the company made any money in the previous year, how it did it, and what it did with the profits, if any. It also allows comparison with previous years' performances and with other companies.

The total value of all goods sold by the company is known as its sales or turnover. Deducting from that figure the cost of achieving those sales either directly or indirectly (for example, either the raw materials in the sold products, or staff salaries paid for work on these and other products) gives the company's operating or trading profit. Deducting from that figure, in turn, the cost of interest payments made on loans from banks or in the form of corporate bonds, gives the company's pre-tax profit. This is the most widely quoted figure in financial reporting on company results and profitability.

The next deduction is tax: first, corporation tax is paid by the company on profits after all costs have been met except for dividends paid out to ordinary shareholders; and second, advance corporation tax, income tax paid on behalf of shareholders on their dividend income, is paid. The latter is paid at the lowest rate of income tax and can be reclaimed or supplemented by the shareholders depending on their tax bracket. Companies can also partially offset tax payable on dividend distributions against mainstream corporation tax.

Money left once taxation demands have been met is known as after-tax profit or equity earnings. This is now at the disposal of the company for distribution as dividends or ploughing back into the business as retained earnings. The allocation will depend on the conflicting aims of maintaining the level of dividends so that investor confidence in the share price remains solid, and having access to the least expensive source of funds for investment in further developing the business. The conflict corresponds to the dichotomy an investor faces between income and capital gain. The two do not preclude one another, but an appropriate balance needs to be struck.

The profit and loss account quantifies revenue and cost flows over a given period of time. In a sense, it links two versions of the second key financial statement, the balance sheet, one at the beginning of the year and the other at year end. The third document is the cash flow statement, which depends on a combination of the two balance sheets and the profit and loss account.

The basic profit and loss account:

Sales or turnover or revenue

minus cost of sales (direct costs)

minus overheads

= operating/trading profit or earnings before interest and tax (EBIT)

minus net interest paid

= pre-tax profit

minus tax (corporation tax and advance corporation tax)

= after-tax profit, net profit or equity earnings

minus dividends

= retained earnings

Balance sheets and cash flows

The balance sheet is a snapshot of a company's capital position at an instant in time. It details everything it owns (its assets) and everything it owes (its liabilities) at year end. The two sides of a balance sheet, by definition, balance. They are merely two different aspects of the same sum of money: where it came from and where it went. Essentially, liabilities are sources of funds while assets are the uses to which those funds are put.

A company's assets are made up of two items: fixed or long-term assets, such as land, buildings and equipment; and current or short-term assets, such as stocks of goods available for sale, debtors or accounts receivable, and cash in the bank. Its liabilities are made up of three items, the first two being current or short-term liabilities, such as trade credit or accounts payable, tax, dividends and overdrafts at the bank; and longer term debt, such as term loans, mortgages and bonds.

The third form of liability is that of ordinary funds, and this in turn divides into three forms: revenue reserves or retained earnings – the company's trading profits that have not been distributed as dividends; capital reserves – surpluses from sources other than normal trading such as revaluation of fixed assets or gains due to advantageous currency fluctuations; and issued ordinary shares.

Ordinary shares have three different values: their nominal value, the face or par value at which they were issued and which may have no relation to the issue price or current trading price; their book value, the total of ordinary funds divided by the number of shares in issue; and their market value, the price quoted on a stock exchange. For the purpose of reading the financial pages, the last value is the one of primary significance.

The basic balance sheet:

Assets (fixed or long-term assets + current or short-term assets)

Liabilities (long-term debt + current or short-term liabilities + ordinary funds)

Ordinary funds or shareholders' funds = retained earnings + capital reserves + issued ordinary shares

The cash flow statement details the amount of money that flows in and out of a company in a given period of time. Cash flows into a company when a cheque is received and out when one is issued. This statement tracks the flow of the funds in those cheques: how much has flowed through the accounts, where the funds have gone to and where they have come from.

The balance sheet is a check of a company's financial health, and the profit and loss account an indicator of its current success or failure. Together they can be used to calculate a number of valuable ratios, and the cash flow statement can be used to understand what lies behind short-term movements in these ratios.

Financial ratios

Numerous ratios can be calculated from a company's financial statements, many of which are covered in detail in the Ciaran Walsh and Wendy McKenzie books, and in Chapter 18. For the purposes of a reader of the financial pages, some of the most useful are pre-tax profit margins, net asset values and the return on capital employed. Each of these allows valuable insights into corporate value and performance from the point of view of both investor and company manager.

The pre-tax profit margin is simply the pre-tax profit divided by the turnover for the period. Profit margins vary considerably between industrial sectors but can certainly be used to compare company performance within an industry. There are often rule-of-thumb industry standards.

$$\text{Pre-tax profit margin (per cent)} = \frac{\text{pre-tax profit} \times 100}{\text{turnover}}$$

Net asset value (NAV) is the total assets of a company minus its liabilities, debentures and loan stocks. This is the amount that the ordinary shareholders will receive if the business is wound up, the sum left for the last claimants on a defunct company's assets. It is also known as shareholders' interests or shareholders' funds, and is effectively the total par value of the shares in issue plus all historic retained earnings.

Net asset value per share is calculated by dividing net assets by the number of shares in issue. This has varying degrees of significance depending on the nature of the business.

For example, the net asset value of a company whose performance depends primarily on its employees will not be important since its tangible assets are few. In contrast, a business heavily built on assets, such as investment trusts or property companies, will find its share price considerably influenced by its net asset value per share. The share price might be at a premium or a discount to the net asset value per share (see Chapter 10).

Return on capital employed (ROCE) is a ratio that indicates the efficiency of a business by showing to what effect its assets are used. It is calculated as the pre-tax profit divided by the shareholders' funds and any long-term loans. The resulting figures enable comparison between one company and another within the same sector; for the investor, they can also be used to compare across different sectors.

Capital employed = ordinary funds + long-term debt

$$\text{Return on capital employed (per cent)} = \frac{\text{pre-tax profit} \times 100}{\text{capital employed}}$$

Some other important ratios, including earnings per share, dividends per share and the debt/equity ratio, are explained later in this chapter and in Chapter 18. First, though, it is important to see how all these results and ratios feature in the pages of the *Financial Times*.

Company financial news

The Companies & Markets pages of the newspaper contain details of the financial results of all quoted UK companies, and a handful of those without quotations. There may only be space for a sentence or two on the results of the smaller companies, but larger ones will be given a substantial news story as well as a separate comment in the Lex column on the results. The comment, clearly separated from the news, gives the newspaper's views on why the results are as they are, what the company's prospects might be, and whether its shares are rated appropriately by the market. These pages also report fully on rights and other share issues and large takeover bids. They include briefer items on many smaller acquisitions.

A typical news report on a company's results looks like this, with remarks on the underlying determinants of a company's performance and prospects, and the sometimes unpredictable impact on the share price:

> Ryanair, Europe's leading low-cost carrier, increased its pre-tax profits by 32 per cent in its first quarter from April to June, despite a doubling of its fuel costs. The Irish airline said it remained "cautious" on the outlook for the remainder of the year, however, because it was continuing to budget for higher oil prices . . . Net profits rose by 31 per cent from €53.1m to €69.6m on a turnover that increased by 35 per cent from €299.6m to €404.6m . . . Ryanair, the world's most profitable large airline, achieved a net profit margin of 17.2 per cent, down from 17.7 per cent a year ago under the impact

of its much higher fuel bill. The Ryanair share price rose by 5 cents or 0.7 per cent to close on Tuesday at €6.85, matching its recent 12-month high reached two weeks ago.

(*Financial Times*, 2 August 2005)

In addition to the day-to-day reporting, the *Financial Times* publishes an annual list of the top 500 UK companies, a ranking of companies quoted on the Stock Exchange as measured by market capitalisation (the number of a company's shares in issue multiplied by their market price). This analyses a range of key figures on the companies, including their turnover, profits, return on capital employed and employee numbers. The newspaper also ranks and analyses the top 500 European companies and the top 500 global companies.

Rewarding shareholders

Saturday's newspaper contains a table of company results due in its FT Money section. This includes all the companies expected to announce results in the following week, their sectors and announcement dates, the interim and final dividends paid the previous year and any interim dividend this year.

Results

Saturday's newspaper also lists recently announced statements of interim results and preliminary results (see Figure 2.1). The latter are actually the full year's results made to the Stock Exchange, to be fleshed out in the annual report a little later. The table shows:

- **Company name and sector:** basic company details. The full sector names are listed in FTSE Actuaries share indices (see Figure 6.4).
- **Pre-tax profits:** these are figures both for this year and the same period of last year (the figure in brackets) in millions of pounds. The letter L indicates a loss.
- **Earnings per share (eps):** this measures a company's total net return earned on ordinary share capital. It is calculated by first deducting tax, depreciation, interest and payments to preference shareholders (leaving after tax profit), and then dividing by the number of ordinary shares in issue. The figures can be compared with the previous year.
- **Total dividends per share:** the total dividend net of tax divided by the number of shares in issue. Again, the figures allow a comparison with the previous year.

The value of earnings per share is one of the most widely quoted statistics of a company's performance and share value. The growth and stability of this ratio are a good indicator of how much a company is increasing profits. But it is sometimes difficult to make comparisons across companies because of different methods of calculating earnings.

$$\text{Earnings per share} = \frac{\text{after-tax profit}}{\text{number of shares}}$$

Pre-tax profit this year

Pre-tax loss last year

Sector classification, for example, Engineering & Machinery

Dividends per share this and last year net of tax

Earnings per share this and last year

● Last week's preliminary results

Company	Sector	Pre-tax profit (£m)		Earnings* per share (p)		Total divs* per share (p)	
Abbeycrest	HseG	0.496L	(1.61)	2.4L	(3.9)	2	(2)
Alterian	Sftw	0.43L	(3.23L)	0.1	(7.1L)	-	(-)
Applied Optical	SpSv	6.09L♠	(1.49L)	13.7L	(4.5L)	-	(-)
Babcock Intl	SpSv	28.4♠	(19.8♠)	10.87†	(11.31)	4	(3.35)
Betonsports $	-	13.3	(27)	13.3	(33.1)	-	(-)
Bristol Water	Utls	1.6♠	(14.5♥)	31.8	(51.5)	26.64	(34.63)
British Land	Real	21.8	(186)	11.5	(35.1)	15.7	(14.5)
BSS	CBld	31.6	(18.2)	72.7	(38.8)	16.5	(14.0)
BTG	SpSv	34.3L♠	(22.8L♠)	23.53L†	(19.4L)	-	(-)
Burberry	GRtl	164.4	(140.3)	22.2	(18.8)	6.5	(4.5)
Cable and Wireless	Tele	363♥	(224L♥)	13	(10.2L)	3.8	(3.15)
Castings	EngM	9.63	(8.69)	15.57	(13.83)	8.79	(8.43)
Celsis Int $	Hlth	5.75	(4.83)	6.83	(6.04)	1.02	(0.86)
Chloride	E&EE	3.53♠	(4.91)	0.7	(1.26)	1.85	(1.65)
Comino	Sftw	1.95	(1.71)	8.7	(7.1)	7.5	(6.6)
Cranswick	FdPr	18.5	(18.9)	30.4	(30.4)	14.5	(13.2)
Dairy Crest	FdPr	66.7	(45.6)	38.2	(28.1)	20.2	(18.9)
De La Rue	SpSv	49.4	(22.5)	17.9	(6.8)	15.3	(14.2)
Detica	Sftw	8.78	(8.78)	32.1	(36.8)	6.3	(5.5)
Edinburgh Inv Tst	IvCo	29.7	(29.8)	12.36	(12.26)	13.15	(13.15)
Electrocomponents	SpSv	95	(96.9)	17	(17.5)	18.4	(18.2)
EMAP	Med	112	(144)	21.6	(36.3)	24.9	(23.5)
EMI	Med	91.8	(52.8L)	7.2	(9.1L)	8.0	(8.0)
Falkland Oil	AIM	0.294L	(-)	0.48L	(-)	-	(-)
First Derivatives	-	0.811	(0.577)	4.6	(3.3)	1.46	(1.1)
Genus	AIM	8.75	(8.14)	17.6	(15.5)	7.5	(6.5)
Great Portland	Real	25.9	(35.6)	14.3	(15.1)	10.75	(10.5)
GUS	GRtl	693	(692)	42.3	(47.4)	29.5	(27)
Homeserve	SpSv	8.6L	(37.8)	34.3L	(35.2)	16.0	(20.0)
ICAP	Spec	131.7	(130.5)	14.1	(15.1)	8.25	(7.4)
Imagination Tech	Info	7.29L	(3.88L)	3.5L	(1.8L)	-	(-)
Intercede	Uqtd	0.426L	(0.661L)	0.7L	(2.9L)	-	(-)
Kelda	Utls	212	(206.2)	47	(47.1)	29	(26.83)
Kingston Comms	Tele	6.99	(118.6L)	3.03	(31.18L)	0.9	(nil)
London Merchant	Real	12.9L	(17.2)	3.61L	(4.85)	6.5	(6.4)
Luminar	Leis	13.7L	(11.3L)	21.1L	(34.9L)	13.79	(12.5)
Maelor	AIM	0.814L	(1.2L)	1.95L	(3.28L)	-	(-)
Man Group	Spec		(715)	201	(186)	66	(50.8)
Marks and Spencer	GRtl	745.3	(781.6)	29.1	(24.2)	12.1	(11.5)
Mercury Recycling	AIM	0.031L	(0.097L)	0.09L	(0.35L)	-	(-)
Mitie	SpSv	35.9	(38.2)	6.0	(7.6)	3.4	(2.5)
Monterrico Metals	AIM	0.741L	(0.929L)	3.6L	(7.3L)	-	(-)
NWD Group	AIM	2.36L	(0.357L)	2.7L	(1.7L)	-	(-)
Pennon	Utls	87.5	(72.3)	63.1	(57.7)	43	(41)
Pilkington	CBld	165	(137)	7.8	(6.3)	5.1	(5)
Plasmon	Info	9.21L	(4.15L)	15.75L	(7.95L)	-	(-)
Prelude Trust	IvCo	4.51	(1.08)	12.3	(3.0)	-	(-)
Redstone	Tele	6.6L	(3.4L)	2.38L	(1.22L)	-	(-)
Scottish Power	Elect	29.3L	(792.1)	16.83L	(29.4)	22.5	(20.5)
Sondex	OilG	4.2	(0.923)	4.7	(0.4)	1.95	(1.8)
SSL International	Prsnl	21.7	(5L)	10	(3.3L)	6.2	(8.1)
Sutton Harbour	AIM	2.39	(1.6)	6.81	(4.63)	3.2	(4.8)
Telford Homes	AIM	7.77	(6.62)	18.96	(18.57)	5.5	(4.5)
Theratase	Phrm	1.52	(2.19)	3.02	(4.54)	-	(-)
Thus	Tele	41.5L	(26.8L)	3.17L	(2.03L)	-	(-)
TR Prop Inv Tst	IvCo	11.8	(11.3)	2.85	(2.51)	2.85	(2.5)
Uniq	FdPr	70.6L	(15.6L)	73.7L	(5.2L)	7.0	(6.7)
Virgin Mobile	Tele	53.1	(-)	13.8	(-)	4.88	(-)
Vodafone	Tele	4,702L	(5,047L)	11.39L	(13.24L)	4.07	(2.03)
Walker Greenbank	AIM	0.807L	(4.05L)	1.48	(7.61)	nil	(nil)
Young & Co Brewery	Leis	9.43	(8.88)	56.36	(48.95)	23.65	(22.5)

Figures in parentheses are for the corresponding period. * Total annual dividends are shown net pence per share, except where otherwise indicated. L=loss. ‡ Irish punts and pence. ✠ 3-month figures. ϕ US dollars and cents. € Euros. ● Previous year end figure. §§ Net asset value. ♥ Pro forma results versus proforma forecast. © 9-month figures. ♦ 13-month figures. ★ 15-month figures.

Fig. 2.1 Last week's preliminary results

Dividends

Monday's newspaper discusses company results to be announced that week, including analysts' forecasts for earnings and dividends. A daily chart lists all results announced on the previous day, particularly focusing on dividends (see Figure 2.2), showing:

- **Company name, turnover, pre-tax profits and earnings per share:** details of the companies that announced results and dividends the previous day, and three key indicators of size and profitability (plus corresponding figures for these indicators for the previous year).
- **Dividends, pay day and total:** the current payment (and corresponding dividend the previous year); the date of the payment; and the totals for the current and previous year. Companies usually announce their dividends net of tax since they calculate them on the figure for after-tax profit.

RESULTS

Name	Turnover	Pre-Tax	EPS (p)	Div (p)	Pay day	Total
Access Intelligence	**Int 0.391** 0.299	**0.053L** 0.179L	**0.1L†** 0.63L	**-** -	**-**	**-** -
Angle	**Fin 4.13** 2.88	**2.35L** 2.33♥	**13.87L†** 20.43	**-** -	**-**	**-** -
Clarity Commerce	**Fin 16.3** 13.3	**0.513♠** 0.511♠	**2.46†** 2.54	**-** -	**-**	**-** -
DTZ Holdings	**Fin 194.4** 166.3	**18.5** 11	**20.1** 10.81	**5** 4.25	**Sep 16**	**7.5** 6.5
Green King	**Fin 732.6** 552.7	**72.8♠** 73.7	**75.7** 72.5	**25.85** 23.5	**Sep 12**	**36.3** 33
Kleeneze	**Fin 176.2** 162.2	**5.87♥** 2.02L♠	**10.21** 5.76L	**2.23** 2	**Oct 3**	**3.3** 3
Somerfield	**Fin 5,214** 5,053	**60.9♥** 45.2♥	**12.1†** 9.6	**2.05** 1.6	**Sep 16**	**2.8** 2.2
Vega	**Fin 52.6** 44.1	**2.91♠** 1.92♠	**8.7†** 5.74	**1.5** 1	**Sep 15**	**2** 1

Figures in £m. Earnings shown basic. Figures in light text are for corresponding period. ♠After exceptional charge. ♥After exceptional credit †On increased capital. ‡On decreased capital.
For more information on dividend payments visit www.ft.com/marketsdata

Fig. 2.2 Results

Dividends are paid only out of earnings, but in order for companies to maintain some consistency in their payments, these need not necessarily fall into the same year as the dividends. Where there has been a loss, a company might choose to make dividend payments out of retained earnings. Some companies, notably newer ones in the technology sector, do not pay any dividends – in part because they may have, as yet, no earnings; and in part because they want to plough earnings back into the business.

Raising finance

From a company perspective, the financial markets exist to raise money through various financial instruments. The sources of capital are basically three: the permanent capital of shareholders (also known as equity capital, ordinary shares or, in the United States, common stock); ploughed-back profits (equity funds or shareholders' reserves); and various forms of debt or loan capital.

Corporate finance, the subject of how companies arrange their capital structure, tends to focus on the relative benefits of financing via debt or equity. The relationship between the two elements in a company's capital structure is known as its gearing, balance sheet gearing or debt/equity ratio (or leverage in the United States), and is commonly calculated as total debt (current plus long-term debt liabilities) divided by ordinary funds (shareholders' equity plus retained earnings). The more highly geared or leveraged a company is, the higher are its borrowings relative to its share capital or turnover.

Total debt liabilities = long-term debt + current or short-term liabilities

$$\text{Balance sheet gearing or debt equity ratio (per cent)} = \frac{\text{total debt liabilities} \times 100}{\text{ordinary funds}}$$

Gearing, in a general sense, is any situation where swings between profits and losses can be caused by small changes in conditions. In the case of gearing with debt and equity, a small change in interest rates can have a dramatic effect: with an increase in the rate of interest, a highly geared company suffers much more from the increased payments necessary to service its debt. The small change can have a big effect on profits.

Another prominent gearing ratio is income gearing, which indicates a company's ability to service its debt, that is, how much room there is between the interest payments it has to make on its debt and the operating profit it is earning. The ratio is calculated as total interest expense divided by operating profit. An alternative way to express this ratio is what is known as interest cover, the number of times interest could be paid out of operating profit. In this case, the calculation is the reciprocal, operating profit divided by interest expense.

$$\text{Income gearing (per cent)} = \frac{\text{interest expense} \times 100}{\text{operating profit}}$$

$$\text{Interest cover} = \frac{\text{operating profit}}{\text{interest expense}}$$

Equity

Equity finance is the capital that allows companies to take the risks inherent in business, embarking on risky new investment projects. It is limited in a private company, and this is the main reason why such a company would want to "go public". In "coming to the

market", getting quoted on the Stock Exchange or the Alternative Investment Market (AIM), through a new issue, a company has access to significantly more money for investment in the business. The means by which this is done, and *Financial Times* reporting of new issues, are discussed in Chapter 5.

There are two common classes of equity capital: ordinary shares, which have no guaranteed amount of dividend payments, but which carry voting rights; and preference shares, which usually carry a fixed dividend and have preference over ordinary shareholders if the company is wound up, but which have no voting rights. There are also variations, including cumulative preference shares and part-paid shares. These are also discussed in more detail in Chapter 5.

Companies already listed on the exchange and wishing to raise new equity capital would normally do so by a pre-emption rights issue. This means that existing shareholders have first option on the new shares or the right to sell that option. An increase in the number of ordinary shares in a company without a corresponding increase in its assets or profitability results in a fall in their value – what is known as a dilution of the equity.

To avoid immediate dilution of the shares in issue, a company might use an alternative financial instrument to raise capital, a convertible (also known as a convertible loan stock or a convertible bond). These are debt instruments that can be converted into ordinary or preference shares at a fixed date in the future, and at a fixed price. Their value to a company, besides avoiding dilution, is that, in exchange for their potential conversion value, they will carry a lower rate of interest than standard debt.

Another form of financial instrument that companies use to raise capital is the equity warrant. This is a security that gives the owner the right, though not the obligation, to subscribe cash for new shares at a fixed price on a fixed date. Warrants are themselves traded on stock markets and work in a way similar to options, which are discussed in detail in Chapter 13. Since the subscription price on a new warrant will exceed the current market price of the underlying stock, the warrant is a speculative asset, gambling on a price rise. They are popular with companies since they can be issued without including them in the balance sheet.

Debt

The alternative to share capital as a source of finance is loan capital. Debt finance is attractive to companies since it allows the business to be developed without giving up a stake in the ownership, and the consequent loss of a share of the profits and a degree of control. It is also often more readily available than new equity capital other than that from retained profits, and it can be built into a company's capital structure as both short-term and long-term debt.

Like equity capital, corporate debt takes a number of different forms. Long-term loans are usually raised by issuing securities: the most common form in the United Kingdom is the debenture. Most debentures offer a fixed rate of interest payable ahead of dividends in the queue of claimants; and they are often secured on specific company assets. They usually trade on the Stock Exchange, involve less risk than equities, but pay a lower rate of interest than other kinds of debt.

Other forms of industrial or corporate loans include fixed and floating rate notes, and deep discount and zero coupon bonds. These differ in how the interest or coupon is determined and paid. Fixed notes pay a specified amount whatever happens to interest rates generally, and hence their price in the secondary market varies inversely with interest rates in the same way as gilts. Bonds of this kind have been a central part of corporate finance in the United States for many years, and are becoming more significant in the United Kingdom and continental Europe as a consequence of shrinking government bond markets and the positive impact of the euro on fund-raising across borders.

Floating rate notes are more prevalent in the Euromarkets, the markets in which players lend and borrow Eurocurrencies (currencies deposited and available for use outside their country of origin). These instruments pay a rate of interest determined by some standard rate such as the LIBOR, an agreed rate for short-term loans between banks, discussed in Chapter 12. Deep discount and zero coupon bonds, in contrast, pay little or no interest. Instead, the issuer offers them at a significant discount to their redemption value so that the investor makes most of the return from a capital gain rather than periodic interest payments. Each of these kinds of debt is discussed in more detail in Chapter 11.

The most common form of short-term loan is the overdraft at the bank, where companies can borrow up to an agreed limit and only pay interest on the amount actually borrowed at any given point in time. Another form is the commercial bill, the short-term counterpart of bonds, where the issuer promises to pay a fixed amount on a given date a short time in the future, usually three months. The bills are generally accepted (guaranteed) by a financial institution, and sold at a discount ("discounted") to their face value to provide the buyer with an appropriate return and the issuer with immediate cash.

One of the most recent innovations in debt instruments is the junk bond, a form of finance developed and used primarily in the United States. This is a bond that offers a higher rate of interest in return for a higher than usual risk of default by the issuer. In the 1980s, junk bonds were used as a means of generating substantial amounts of finance for the takeover of large companies by relatively small ones. They became a focal point of controversies over leveraged buyouts and other supposedly unwelcome or undesirable takeover bids.

Contesting corporate control

One of the aspects of corporate life that features prominently in reporting on companies and the financial markets is the contest for corporate control. Mergers and acquisitions (M&A), bidders and targets, corporate control and corporate governance are issues that frequently make the headlines, and ones that often have an impact on the market far beyond the individual companies or sectors they involve.

The primary argument in favour of acquisitions is that they are good for industrial efficiency: without the threat of their company being taken over and, in all likelihood, the loss of their jobs, managers would act more in their own interests than those of the

owners. In particular, this might imply an inefficient use of company resources and a lack of concern about the share price, the value of which is often a sign of a company's vulnerability to takeover. Certainly, a bid is frequently beneficial to the shareholders of the target company in terms of immediate rises in the share price. It can be argued, however, that the threat of takeover means that management takes too short-term a view: bolstering the share price where possible, investing inadequately for the future, and, where a company has been taken over in a leveraged buyout, perhaps burdening it with too high a debt/equity ratio. The demands of making enough profits to meet interest payments might mean it is managed solely for the short term.

Bids and mergers

Saturday's newspaper has a list of the takeover bids and mergers announced in the previous week and involving bidder and target companies primarily based in the United Kingdom (see Figure 2.3). The table shows:

- **Bids:** details of current takeover bids for publicly quoted companies, naming the bidder and target, the value of the bid per share, the current market price of the target's shares, the price before the bid, and the total value of the bid in millions of pounds.

Bids might be made in the form of a cash offer for all the shares in issue (the value of the bid per share), a paper offer where shares in the bidder are offered in exchange for those

Current bids and mergers

Company bid for	Value of bid per share**	Market price	Pre bid price	Value of bid £ms**	Bidder
ADL	**40***	67½	**23**	0.91	**Nabarro Wells**
Allied Domecq	**686½**	681	**643**	7.59bn	**Pernod Ricard**
Anker	**223§§**	218½	**192**	92.89	**Torex Retail**
Azure	**1***	½	**1¾**	0.55	**Chiddingfold**
Beattie (J.)	**168***	164	**146½**	68.60	**House of Fraser**
Cox Insurance	**92***	92	**87½**	291.58	**Fieldstreet**
East Surrey Hdgs./	**535***	499	**523**	452.91	**Kellen**
Edin. Oil & Gas	**317***	317½	**283½**	132.75	**Dyon (UK)**
Eidos	**50***	56	**44¾**	71.0	**SCI Ent.**
Infast	**34***	33½	**23½**	38.88	**Anixter Intl.**
iTouch	**44***	43½	**34¾**	179.65	**For-Side.com**
John David Group‡	**211.2***	217½	**231**	98.73	**Pentland**
LA Fitness‡	**220***	217½	**193½**	90.31	**MOP Acquisitions**
Lastminute.com	**165***	164	**153**	563.64	**Travelocity**
Matisse	**1***	½	**19**	0.01	**Chiddingfold**
Merchants Retail	**197***	195½	**192**	217.84	**A.S. Watson**
Pillar Property	**855***	848	**845**	769.92	**British Land**
QXL Ricardo	**£14***	3483	**850**	23.8	**B.Florissant**
Shiloh	**130***	129	**102½**	8.73	**Synergy Health**
Southern Vectis	**70***	68½	**60**	13.83	**Go-Ahead Group**
Tops Estates	**515***	511½	**442½**	236.82	**Land Securities**
Wireless Group	**91***	90	**88**	76.0	**Ulster TV**
XN Checkout	**279**	274	**257**	76.08	**Torex Retail**

Prices in pence unless otherwise indicated. *All cash offer. §For capital not already held. ‡ Unconditional. **Based on Closing prices 1/7/05 §§Shares and cash. † Cash alternative shown. /includes 10p interim dividend.

Fig. 2.3 Current bids and mergers

of the target, or a combination of the two. The bids might be agreed to by the management of the target, or they might be defended or contested. Hostile bids are normally settled through what are known as proxy contests, where shareholders appoint proxies to vote on their behalf, either for or against the bid. The battles over corporate control have generated a new vocabulary of company life: white knights (alternative bidders who are preferred by the existing management of the target) and poison pill defences (tactics that mean a successful takeover triggers something deleterious to the target company's value) are just two of the most popular.

The total value of global mergers and acquisitions increased significantly through the late 1990s and into the new millennium, driven by the opening up of national economies and the booming stock markets of Europe and North America. One example was reported in the newspaper as follows:

> Adidas yesterday agreed to buy Reebok of the US for €3.1bn (£2bn) in a deal that will transform the sporting goods industry by pitting the German company against Nike, the market leader. Analysts said the acquisition, which is subject to approval from antitrust authorities, would leave Nike and Adidas-Reebok with control of about 60 per cent of the global market. Investors welcomed the deal, sending Adidas shares up 7.4 per cent. Adidas is offering Reebok's shareholders $59 a share, a 34 per cent premium over Tuesday's closing price. Reebok's share price surged 30 per cent to close at $57.14 in New York (*Financial Times*, 4 August 2005)

Information on recent patterns of domestic and transnational "corporate restructuring" like this can be enormously useful to investors thinking about exploring the relatively short-term investment opportunities in "special situations". What is more, these "recombinant techniques" of corporate finance often have an influence on the financial markets far beyond the individual companies and sectors they involve, so it is important to be sensitive to their likely impact.

The share prices of participating companies generally rise in response to announcements of M&A activity. Indeed, the whole market typically goes up if a really big deal hits the news. But do such events really benefit investors in either the buying or selling companies in the long term? The evidence seems to be clear that mergers ultimately do not pay off for either buyers or sellers. For acquirers, the effect can be very bad, reducing their profitability by as much as 15 per cent a year, especially if they have to use external funds to finance their takeovers. It seems to be better for investors to seek to buy potential targets rather than potential bidders – perhaps companies whose declining share prices make them vulnerable to takeover or whose businesses might appeal to overseas companies seeking to expand their global reach.

Throughout the 1980s and 1990s, the market for corporate control was the source of considerable financial innovation as well as a significant degree of controversy, notably in the United States. A new kind of arbitrage also became prevalent. Arbitrage is the tech-

nique of buying an asset at one price in a market and, almost simultaneously, selling it in another market for a profit.

Risk arbitrage dealt in the shares of companies targeted for takeover, buying before the announcement of a bid and selling when the usual price rise after announcement followed. At times it relied on inside information, and the practice of insider trading, compounded with other financial scandals, undoubtedly earned financial institutions a dubious reputation. The next chapter presents the much more positive side of these institutions: first, their provision of a marketplace for lenders and borrowers of money, and second, their advice and assistance to these two sides of the market.

“Some collective nouns: a gleam of bulls; a gloom of bears;

a roller-coaster of stock markets; a commission of brokers.”

James Lipton

“The market is not an invention of capitalism. It has existed for centuries.

It is an invention of civilisation.”

Mikhail Gorbachev

3

Financial institutions

- **Managing money** – how assets are distributed into the portfolios of investors: investing institutions and fund managers; clearing banks
- **Financing industry** – how new securities are created to provide funds for borrowers: investment banks; securitisation
- **Making markets** – the provision of facilities for assets to be priced and traded: marketmakers and broker-dealers; stock exchanges; money, currency, and derivatives markets
- **Moving prices** – demand, supply and other key economic forces: short- and long-term determinants of share price movements; overall market movements

The most basic financial institution is a market – a place, not necessarily physical, where buyers and sellers can come together to trade. There are essentially four kinds of market in the financial system. The first type is the securities market where new capital is raised (the primary market) and where trading in existing shares and bonds takes place (the secondary market). Such markets include stock exchanges around the world, as well as the international capital markets. The other three kinds of market are: the money markets where highly liquid financial instruments are traded; the foreign exchange markets where currencies are bought and sold; and the futures and options markets where these derivatives can be used to hedge or speculate in future interest rate, exchange rate, commodity price and security price movements.

All of these markets are organised in the sense that they operate on well-established custom and practice, and direct access to them is limited to professional participants. Investors and borrowers usually gain access to the markets through intermediaries. Beyond the organised markets are the over-the-counter (OTC) markets – places or, more often, computer screen-based or telephone networks where securities are traded outside the recognised exchange. The biggest of them all is the foreign exchange market, although the OTC derivatives market is also growing dramatically.

There are three basic functions that have to be performed in a financial market: distribution of assets into the portfolios of investors who want to own them; creation of new ones in order to provide funds for borrowers; and "making" the markets, providing the means by which all of these assets can be easily traded. The first function relates more to investors, the second to companies, and the third is the central facilitating role to which all financial institutions contribute in one way or another.

A single institution might perform all three of these functions and do them across a broad range of markets. For example, many investment banks are involved in managing clients' investments as well as corporate finance, arranging deals, helping companies raise money through flotations "going public", rights issues and bond issues, and advising them on takeovers. Furthermore, they often act as marketmakers, trading on their own behalf, especially in the foreign exchange, Eurobond and derivatives markets.

The performance of a range of different roles, and the contrast between acting as a principal on one's own behalf or as an agent on behalf of a client, throw up a number of conflicts of interest. Such devices as Chinese walls, notional barriers intended to deter valuable market information from being shared between parts of a company with conflicting interests, aim to prevent abuses. But this is still an area of considerable controversy. Apart from the benefits of specialisation, it is one of the reasons companies might focus on different sectors and functions of the market.

Managing money

Chapter 1 explained the principles of investment on the premise that an individual investor is the dominant player on the saving/lending/investing side of the capital markets, making and implementing his or her own investment decisions. In reality, individual

investors acting alone form only a small part of the investment community. Nowadays the bulk of investment is done by large investing institutions such as pension funds and insurance companies, operating on behalf of the millions of people who put money into them. Furthermore, many individual investors rely on the services of a range of market professionals, intermediaries who offer advice on, and management of, their asset portfolios.

Investing institutions and fund managers

Many people save in occupational pension schemes. These savings are administered by pension funds, which have become the major players in equity and other markets, operating vast portfolios of assets on some of the basic principles outlined in Chapter 1. Each Monday, the *Financial Times* publishes FTfm, a supplement on the fund management industry. The newspaper also publishes an annual survey of pension fund management. This lists leading pension fund managers, the value of the funds under their management and the number of clients for whom they provide these services, with comparative figures for previous years. This is a valuable guide to the performance of these institutions and their relative weight in the investment community.

Life assurance and general insurance companies are also important in securities markets. In common with pension funds, they manage their funds on the principle of matching the nature of the assets they hold with that of their liabilities. Thus, pension funds and life assurance companies often have liabilities that will only fall due in the long term. Hence, they typically have a preference for long-term assets, such as ordinary shares with good growth and capital gain potential. Insurance companies, whose liabilities might fall due much sooner, tend to prefer a portfolio containing some more liquid assets. In either case, the fund managers are bound to act prudently under their fiduciary obligations to the people who placed money in their care.

Unit trusts (known in the United States as mutual funds) are another form of managed investment. Investors buy units in a trust, and the trust manager invests the money in shares or any other assets laid down by the trust's investment objectives and its guidelines for decision-making. The advantage for investors is that relatively small amounts of money can be spread between a range of assets, securing the benefits of portfolio diversification: if invested well, the trust's capital grows and so does the price of its units. Unit trusts generally specialise in particular types of asset, such as equities of a certain industrial sector or a specific country or region.

Investment trusts are similar to unit trusts except that they have a limited size. Like unit trusts, they invest in equities and other assets, but whereas unit trusts are open-ended, with no limit on the amount of units that can be bought, investment trusts are closed-ended. In a sense, they are more like a regular company with a set number of shares in issue, and in fact their shares are usually listed on the stock market. Shareholders receive their income on investment trusts from dividends as well as any capital gains. Both unit and investment trusts are examined in more detail in Chapter 10.

Investing institutions will generally manage their asset portfolios themselves, but at times they will use the services of companies specifically set up to manage the portfolios

of large institutional investors or wealthy individuals with substantial holdings. These are variously known as fund, asset, equity, capital or money management companies, and they will distinguish themselves both by the kinds of markets in which they operate, and by their investment philosophies. For example, certain companies may deal only in equity markets, others on such diverse principles as passive indexation, a preference for growth stocks, or the exploitation of market inefficiencies.

Pension funds and other investors, large and small, may also use the services of stockbrokers and other investment advisers. These brokers provide research to institutional and large individual investors for which they are paid by commission on business placed through them. They also provide market access for smaller retail clients, supplying a range of different services: relatively low-cost trading; and advice on portfolio allocation, on particular transactions, and on tax issues. Stockbroking is often just one of the activities of a large diversified securities house or investment bank.

Clearing banks

The clearing banks' role in the management of money is very varied. Their main activity is as deposit-taking and loan-making institutions that make their money by borrowing (usually taking deposits, but also using wholesale funds from the money markets) at one rate of interest and lending at a higher one. Building societies operate in a similar way except that they specialise in lending for the purchase of property. But banks differ in that they also provide a range of other financial services, dealing directly with the public over matters from investment advice (both financial and capital) to foreign exchange needs for holidays or business trips abroad.

Banks also "create" money through what is known as the money multiplier. What happens is that a bank receives a deposit, some of which is kept in liquid form as a safeguard in case the depositor needs it back, with the rest being lent on. The borrower will then spend the money on an item, the seller of which will deposit it in a bank. Again, part of the deposit will be kept liquid with the rest lent on, and so the cycle continues. If it were not for the fact that the banks do not lend all that they receive in deposits, the process would continue indefinitely with the amount of money in the economy, the money supply, ballooning.

In fact, the proportion of their deposits not lent determines how much a given deposit eventually becomes within the whole banking system. If, for example, all banks keep back 10 per cent of their deposits, an initial deposit can expand tenfold: of a £100 deposit, £90 is lent and deposited, of which £81 is lent and deposited, and so on. The eventual total of bank deposits is £1,000.

As a result of the money multiplier, banks are highly geared companies, with a substantial proportion of their capital made up of borrowed funds. Since high gearing implies that small changes can have major effects, it is critical that they lend soundly or a large credit failure by one of their borrowers could have devastating consequences. This is why the monetary authorities attempt to influence, at times by decree, the various ratios (such as cash, liquidity and reserve assets ratios) banks employ to manage their

finances. The other reason they do so is to control the expansion of the money supply, one of the drivers of inflation and the overall level of economic activity. Other means by which this may be done are discussed in the next chapter.

Financing industry

The provision of funds for industry is the role of the primary markets, where new securities are issued on behalf of clients. The aim of the financial institutions that perform this service on behalf of client companies is to attract cash for new capital investment, in the form of either equity or debt finance, from individual and institutional investors, banks and, in some cases, the Euromarkets.

Investment banks

When a company wants to raise new equity or debt finance, it will usually approach an investment bank for advice and assistance, and a broker to sponsor the issue. The bank is responsible for advising on the terms of the issue and, in particular, designing its key features. This is one of the most fertile areas for innovation as banks create the new and more exotic financial instruments discussed in Chapters 2 and 11. The bank will also arrange the mechanics of the issue, such as the various techniques for making new issues and rights issues discussed in Chapter 5.

New issues of equity capital require the publication of a prospectus to satisfy the regulations of the Stock Exchange, which is naturally concerned to protect its reputation and the interests of its investors. The issues also require underwriting by the issuing house, the investment bank. It must agree to subscribe for any shares not taken up by investors once the offer period has expired. The role of the sponsoring broker, which will be a member of the Stock Exchange, is to ensure that the Exchange's legal requirements are met, to pass on, if necessary, some of the risk of underwriting to sub-underwriters and to distribute the shares into the portfolios of willing investors.

As well as raising new capital, investment banks will usually be involved on one side or the other of the market for corporate control, advising on strategies. The *Financial Times* publishes an annual survey of corporate finance. This ranks investment bank corporate advisers by the value of their work in three areas: takeover bids; flotation of companies; and issues of shares by companies already with quotations. It is a valuable guide to how well the banks are performing against one another.

Securitisation

Of course, many companies might raise new capital through borrowing directly from a bank in the form of a loan. Nowadays, this has become less common owing to a process known as securitisation. This is the process that enables bank borrowing and lending to

be replaced with the issue of some of the debt securities mentioned in Chapter 2: commercial bills, bonds and floating rate notes. It creates attractive securities for investors and it has significant benefits for the companies. In particular, bank charges are reduced, and the cost of raising funds may be even less expensive if the markets turn out to be more efficient judges of the creditworthiness of companies than banks. Of course, investment banks will normally arrange the issue of these debt securities.

Securitisation also refers to the conversion of previously untradeable assets into securities that can be bought and sold. For example, an innovation of the 1980s was the mortgage-backed security. This is produced by converting the assets of a building society, the stream of payments due on its mortgages, into a tradeable security. Closer to the interests of the small investor is the certificate of deposit (CD), a very liquid, almost risk-free asset, which pays a relatively low rate of return. It is analogous to an interest-bearing bank account, but it has the advantage that it can be traded; it is effectively a bank account that has been securitised.

Making markets

Marketmaking is the central function of financial institutions in the secondary markets where existing securities are traded. The role of the marketmakers is to determine security prices and to ensure that buyers and sellers can trade without having a significant impact on prices. Efficient marketmaking avoids substantial price shifts or undue volatility in response to individual buy or sell orders, providing liquidity and allowing dealing to take place on a large scale. It also ensures that the costs of trading are not too high.

Marketmakers and broker-dealers

The companies or branches of companies that are marketmakers buy and sell securities on their own account, acting as a principal. With the right to trade in this way goes the obligation to make the market. Hence, it is conceivable that at the end of a day's trading, marketmakers will be left with unwanted stocks or an undesirable shortage of stocks. They will therefore always be seeking to find a price that "balances their books". Their activities are an important influence on stock price movements.

When quoting prices at which they will buy or sell securities, marketmakers list bid (buying) prices and offer (selling) prices. The difference between the two figures is known as the spread. Since marketmakers naturally aim to profit from their transactions, the bid price is invariably lower than the offer price. This is comparable to a bank that takes deposits (borrows or "buys" money) at one rate of interest, and loans (sells) it at a higher price. Although the spread for the marketmaker or the rate differential for the bank may seem small, totalled over the huge amount of transactions they make, they are often able to make very considerable profits.

Stockbrokers or, as they are more commonly known nowadays, broker-dealers, are companies that act both as an agent for the investor, and as a principal, trading on their own behalf. Such companies face especially difficult conflicts of interest. But for the existence of Chinese walls, their marketmaking arm might be inclined to encourage their broking arm to advise client investors to take on securities the former is keen to unload. Similarly, they may also be inclined to the practice of "front running", buying promising securities or selling dubious ones ahead of clients, and potentially affecting the price adversely before their clients' trades.

Marketmakers and broker-dealers both thrive on activity: the more transactions they make or facilitate, the better their opportunities for profit or commission. Obviously, the benefit of the marketmakers' activity is to enhance market liquidity, but that of the brokers might not be so valuable. Again, there is a conflict of interest: the investor is aiming for return on assets; the broker is aiming partly for this (even if simply to ensure his or her services are retained), but also for commission on trades. The process of making trades frequently just to earn commission rather than for any long-term investment objective is known as churning.

Stock exchanges

The London Stock Exchange is the main securities market in the United Kingdom. This is the market for listed shares and gilts, plus debentures, convertibles and warrants. For all of these securities, it is both a primary and secondary market. The second tier of the Stock Exchange is known as the Alternative Investment Market (AIM). This market was established in 1995 to trade in shares not suitable for the main market. It enables smaller companies to "come to the market" to raise capital without having to satisfy the more onerous listing and disclosure requirements of the Stock Exchange. The equities listed on these markets and the indices that measure their overall performance are the focus of Chapters 5 and 6.

The most significant stock exchanges elsewhere in the world are in New York, Tokyo, Hong Kong, Frankfurt and Paris. These are explored further in Chapters 7, 8 and 9. In terms of total market capitalisation, the sum of the "market cap" (the share price multiplied by the number of shares in issue) of all the securities listed on them, there are three that outrank the London Stock Exchange. These are the New York Stock Exchange, the Tokyo Stock Exchange and the US electronic exchange (the Nasdaq). The indices that evaluate them (in the United States, the Dow Jones Industrial Average, the Nasdaq Composite and the Standard & Poor's 500, and in Japan, the Nikkei 225) are some of the most important indicators of the state of the world's financial markets.

Until quite recently, trading on world stock exchanges was conducted in a physical setting, such as the City of London or Wall Street. The impact of technology has been that there are now fewer actual marketplaces. Instead, much trading is conducted through computer network systems, such as the National Association of Securities Dealers Automated Quotation (Nasdaq) system in the United States. These electronic trading

systems tend to be quote-driven, with marketmakers and dealers quoting bid and offer prices on screen for other traders to select from. This contrasts with the older, order-driven system of trading where dealers listed their orders to buy and sell shares with the aim of finding a counterparty wanting to buy or sell that quantity at a price on which both parties could agree.

On top of technological advances, stock markets have also seen considerable deregulation in recent years – an easing of the restrictions on their operating methods. In the United Kingdom, the most notable event of this kind was the Big Bang of 1986. Prior to this deregulation, the two key institutions in the market were jobbers and brokers, each of which operated in a single capacity. The jobbers were marketmakers who did not deal directly with customers, but only with brokers; the brokers placed their orders only through jobbers, and worked on behalf of customers but never dealt with them for their own account. The system protected investors from abuses of some of the conflicts of interest that arise from the principal/agent relationship, but it had a number of weaknesses.

The main problems of the pre-Big Bang Stock Exchange were that it operated as a cartel with fixed commissions on trades, it limited access to capital and new technology, and it constrained liquidity and the ability to make substantial trades without unduly influencing prices. The radical changes of Big Bang led to far more competition between financial institutions, a significant influx of outside capital as banks bought into the market, and the adoption of a screen-based trading system. Between them, these developments created a much more fluid market with information flowing more freely, liquidity was enhanced, more and larger transactions were made more feasible, and the costs of doing business, at least for the major players, was notably reduced.

Money, currency and derivatives markets

The money markets are markets where money and any other liquid assets such as Treasury bills and bills of exchange can be lent and borrowed for periods ranging from a few hours to a few months. Their primary function is to enable banks, building societies and companies to manage their cash and other short-term assets and liabilities, the short-term counterparts of the long-term capital markets. The main participants in these markets in the United Kingdom are: the banks; companies that issue short-term debt instruments; money market brokers; and the discount houses, which act as the marketmakers for most of these assets. Discount houses are discussed in the next chapter.

The foreign exchange markets deal in currencies, for the most part the leading currencies of the developed world: the dollar, the euro, the yen, the pound and the Swiss franc. The main players are the marketmakers, primarily banks, who buy and sell currencies on their own account and deal with customers and other banks, and brokers who try to find trading counterparties for their clients. This is an over-the-counter market with business transactions conducted almost exclusively through a computer and telephone network. Both the money and currency markets are explored in more detail in Chapter 12, while the euro forms part of the subject of Chapter 16.

The derivatives markets deal in futures and options, and increasingly in more exotic financial instruments such as interest rate and currency swaps. Futures and options originated in the commodities markets, the markets for raw materials and primary products, as a means of protecting against very adverse price swings. They are still used today in such markets as the London Metal Exchange, but contracts and markets have also now evolved for a range of other securities, debt instruments and indices. In the United Kingdom, the focal point for this activity is the London International Financial Futures and Options Exchange, the LIFFE. There is also a growing market in over-the-counter derivatives, custom-built contracts between very large investors and borrowers usually created by the investment banks. The markets for futures and options other than those traded over the counter are discussed in Chapter 13, while the commodities markets feature in Chapter 14.

Moving prices

Chapter 1 examined how changes in interest rates might affect the prices of equities, bonds and currencies, but what other factors move the prices of individual assets and of whole markets? Obviously, supply and demand are the basic influences for an individual asset, but what are the underlying determinants of these economic forces, and what causes substantial broad market moves? These are questions surrounded in controversy, especially related to the stock market, and it is important to differentiate between various kinds of price movement.

In the stock market, there are essentially three kinds of moves: the long-term trend of the overall market as reflected in various indices; short-term moves around the trend; and the movements of individual shares and sectors. For the most part, individual sectors broadly follow overall market trends, though some may be growth industries, some may be mature or declining industries, or some may simply be the beneficiary or victim of a particular event with ramifications peculiar to that industry (for example, the oil industry and the Gulf Wars, or the technology, media and telecommunications (TMT) industries and the hype surrounding the potential impact of the internet). In those cases, sector values can diverge from the market trend.

The price movements of individual stocks are influenced by a range of factors specific to the business. Most of these are explored in Chapters 5, 6, 7, 8 and 9, but the more common include company profits, the growth of those profits, dividends, and takeover bids. These are the fundamentals of corporate life and fundamental analysis aims to uncover the truths about a company behind the figures to determine whether its shares are over- or underpriced. The way changes in company fundamentals actually cause price movements is not always obvious because of the market's capacity to discount future events. These are news events, the core of the forces that move individual stock prices, but expectations of future news events can be just as powerful.

The fact that prices move on account of expectations of the future, as well as being determined by historic and current knowledge of a company's performance, suggests that they incorporate all known information about the value of shares. This is the foundation of one of the most powerful theories of asset valuation, the efficient market hypothesis. The predictions of this theory are that no one can forecast future price moves consistently and that, over the long term, without inside information, no one can beat the market. The corollary is that stock prices follow what is called a random walk: at any point in an equity's price history, it is impossible to predict whether its next move will be up or down. Hence, investment strategies based on chartism or technical analysis, the study of past price trends, will not perform dependably.

Market movements

As well as causing individual equity price movements, news about particular companies can also affect the whole market. This is especially the case with blue chip companies, the most highly regarded companies in the market and usually ones with substantial assets, a strong record of growth and a well-known name.

Short-term market moves driven by individual company news tend to be affected by such intangibles as sentiment, investor psychology and how the market is "feeling". Medium-term moves seem to be influenced by supply and demand factors, such as the weight of money moving into or out of stocks.

It is probable that long-term moves depend on fundamental economic and political factors. The market often follows the broad patterns of economic activity, and certainly news about inflation, productivity, growth and the government's fiscal and monetary stance can have major effects on the level of the market. Hence the importance of understanding what the economic indicators mean and how they relate to the markets. These are the subjects of Chapters 4, 15, 16 and 17.

Major political events can also have an impact as with the July 2005 terrorist attacks in London:

> European and US markets were thrown into turmoil on Thursday by the terrorist attacks in London, prompting a widespread sell-off in equities and a flight to safe haven assets such as bonds, gold and the Swiss franc. The FTSE 100 index finished the session down 71.3 points, or 1.4 per cent, at 5,158.3 having been down 207.5 points, or 4 per cent, at one point. Even with the recovery, the index had its worst one-day performance since August 6 last year. The CAC index in France shed 59.3 points, or 1.4 per cent, to 4,220.6 and the Xetra Dax in Germany declined 85.3 points, or 1.8 per cent, to 4,530.2. Most European bourses were off more than 3 per cent at their session lows, but recovered to close less than 2 per cent down.
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> (*Financial Times*, 8 July 2005)

On occasion, stock prices can plummet in a way that appears to bear no relation to fundamentals, supply and demand or even, at least in its early stages, to market sentiment. Such an occasion was Black Monday and the stock market crash of 1987, when prices fell by record amounts in markets throughout the world. Much analysis of this event has been conducted and there is still no agreement on its root causes. Certainly, fundamental economic forces do not appear to have been critical, since most economies continued to grow reasonably well in its aftermath, and the downturn did not come until the very end of the decade. Part of this was due to the prudent economic policies of key governments, which avoided some of the disastrous policy mistakes made after the last major market meltdown, the crash of 1929. The central role of governments in financial markets and economic policy more broadly is the subject of the next chapter.

“The important thing for government is not to do things which individuals are doing already, and do them a little better or a little worse, but to do those things which at present are not done at all.”

John Maynard Keynes

“There have been three great inventions since the beginning of time: fire, the wheel and central banking.”

Will Rogers

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Governments

- **Balancing the budget** – what the government gives and gets: fiscal policy; taxation and the budget deficit
- **Controlling the money supply** – government intervention in the money markets: Treasury bills and open market operations; interest rates and monetary control; central bank independence
- **Forecasting the economy** – the basis for government action: economic policy; credibility and the political business cycle
- **Regulating the markets** – the government's goals of preserving financial stability, promoting competition and protecting investors and depositors

Lenders/investors and borrowers/companies are the two sides of the interactions that meet in the financial markets, with financial institutions being a third party, facilitating these transactions. The government is the fourth player in this picture. It typically acts as both borrower and lender but, in addition, it will frequently intervene, directly, through legislation or by persuasion, to regulate the markets.

Overarching all of these roles is the government's position as primary economic agent, attempting to monitor and influence the state of the economy. The principal means by which it does this are: fiscal policy, the budgetary balance between public spending and taxation; and monetary policy, essentially control of the money supply and manipulation of interest rates. Forecasting the future direction of the economy plays an important role in determining these policies. How they all impinge on the financial markets is the subject of this chapter. Further details on the economy feature in Part 3.

Balancing the budget

Governments spend money on a range of different goods, services, salaries, subsidies and other payments. These include defence, education, health, public transport, public infrastructure, public housing, the pay of public sector employees, social security and interest on government borrowings. To help pay for the services this spending provides and, to some extent, to redistribute incomes from the wealthier to the poorer, the government raises money, primarily through taxation. Some taxes are direct, levied on personal and corporate income; some are indirect, levied on sales, value-added, imports, and certain products such as petrol, cigarettes and alcohol.

The difference between public spending and taxation is known as the budget balance, the budget being the collective term for the government's annual decisions on how its tax and spending plans will be designed and implemented. It might be a balanced budget where revenues equal expenditure, a budget surplus where revenues exceed expenditure, or, most typically for the UK government, a budget deficit, where expenditure exceeds revenues – the public sector net cash requirement. Net income was the UK government's position for a brief period in the late 1980s and again in the late 1990s. More commonly, there is a net outflow. The cumulative total of all public sector net cash requirements is known as the national debt.

Through the 1980s and 1990s, the UK government had one other source of revenue, namely the receipts from the sale to the public of nationalised industries, the process of privatisation. The influx of cash from "selling the family silver" had a very positive effect on government finances, and, naturally enough, through the issue of a significant amount of new equities, aroused considerable interest in the financial markets. Many new investors were tempted to participate in the stock market, particularly with its "stag" opportunities, buying the privatised stocks in the primary market and selling them shortly afterwards at a premium in the secondary market. These matters are examined further in the next chapter.

Fiscal policy

Fiscal policy is used by the government in a variety of ways: to provide services, such as education, health, defence and infrastructure, that might not be so well provided by the free market; to meet social goals of alleviating poverty and assisting the disadvantaged; to influence the behaviour of individuals and companies, encouraging desirable activities like investment and discouraging undesirable ones like smoking; and to manage the overall level of demand for goods and services in the economy, and hence the degree of economic activity and the rate of inflation. The government goal that may affect financial markets most significantly is that of influencing behaviour. For example, different tax treatment of different categories of assets will influence investment decision-making. Similarly, the tax treatment of corporate earnings will affect a company's dividend policy and its choice between raising capital through debt or equity. More broadly, government spending policy, perhaps in public procurement, might mean increased turnover and profitability for companies in the relevant industries. This might have a positive effect on their share prices. By the same token, excessive borrowing might drive up the costs of funds for all borrowers, perhaps resulting in a crowding out of private capital investment.

Achievement of the government ambition of demand management is generally attempted through countercyclical policy: the government aims to smooth out the more extreme patterns of the business cycle, discouraging demand in a boom and boosting it in a recession. This can be done in a boom either through raising taxes or cutting spending; in a recession, it may try lowering taxes or increasing spending. To some extent, there are built-in stabilisers, and this is what is meant by the cyclical effects of the business cycle. For example, in a recession people are earning and spending less, which means that the government's tax revenues fall. Of course, if the budget is already in deficit at that point, the deficit will expand even further. The government's problem then is to decide between raising taxes and cutting spending to ease the deficit, or the reverse to help pull the economy out of recession. At such a point, it may turn to monetary policy.

Taxation and the budget deficit

There is considerable controversy about the use of taxation and budget deficits to influence aggregate demand and incentives to work. The pursuit of higher output and lower unemployment, without overheating the economy and causing inflation, is Keynesian economic policy. Growth is pursued through increasing government spending or cutting taxes, creating or raising the budget deficit. Tax cuts, for example, increase demand through their beneficial effects on personal disposable income.

The question is, though, how far can the government manage demand in this way before running into inflationary bottlenecks? Furthermore, it is not clear that governments can make accurate enough assessments to judge exactly how much "pump-priming" or "deficit financing" is needed to "fine-tune" the economy along a non-inflationary growth path. Indeed, when demand should be restrained to avoid overheating, there are political reasons why governments might avoid raising taxes.

Increased spending or lower taxes as a means of demand management in times of recession are typically a politically centre-left policy. But tax cuts may also be advocated by centre-right politicians who view them as having a different economic effect. These politicians, and the economists who advise them, focus on the incentive and disincentive effects of taxation, arguing that lower taxes have a strong incentive effect, encouraging people to work harder, and thereby raising national output.

Certainly, taxation does affect incentives to some extent, but extreme believers in this position, who gained political power in the United States in the 1980s, took it a little too far. These supply-side economists claimed that cutting the tax rate significantly would have such powerful incentive effects that the level of tax revenues would actually rise. In reality, the result was a series of massive budget deficits.

Debates about taxation also focus on the appropriate form it should take. For example, progressive income tax is a way of redistributing income from richer to poorer sections of the population, creating a more equitable society. Supply-siders prefer the use of indirect taxes, such as value-added tax. These, they argue, are easier to enforce and reduce the incentive to work by less than equivalent levels of income tax. The claim is that taxpayers experience "money illusion": if they pay taxes concealed in product prices, they notice it less than taxes taken out of their pay, and are thus prepared to pay more tax on goods than on income. This might have a number of political and economic benefits: if people feel less heavily taxed, they will behave accordingly.

Controlling the money supply

In order to finance its frequent budget deficits, and in common with any other individual or organisation that wants to live beyond its means, the government has to borrow in the financial markets. It does this by issuing securities with a range of maturities, from the short, medium, long and irredeemable gilt-edged stocks traded on the Stock Exchange to three-month Treasury bills issued weekly in the money markets.

The government's agent for the sale of its debt instruments is the Bank of England, often known simply as the Bank. The stocks are first created by the Treasury's Debt Management Office and then the Bank arranges their sales, purchases and redemptions. New issues replace the ones that have matured in order to meet the government's continuing financing needs and the market's demand for a balance of differently dated stocks. Most are redeemable at some specified date, although a few, such as War Loan and Consols, are irredeemable.

Longer-term government debt takes the form of gilts. These are examined in detail in Chapter 11. For the present, it is merely important to distinguish gilts from fixed interest stocks generally. Not all gilts are fixed-interest, nor are all fixed-interest stocks gilts. For example, some of the corporate debt instruments discussed in Chapter 2 are fixed-interest while some gilts are index-linked with their interest payments determined by the prevailing rate of inflation.

Treasury bills and open market operations

The means by which the Bank of England makes a public offering of stocks, where a minimum price is set and tenders invited, is most easily illustrated through the way the government's shortest-term debt securities, the Treasury bills, are issued.

Treasury bills are bills of exchange, short-term debt instruments issued by the Bank of England on behalf of the UK government. They have a three-month maturity but carry no interest, the total yield being the difference between the purchase and redemption prices. The bills are issued by tender each week to the discount houses in units of between £5,000 and £100,000, and on Saturday, the *Financial Times* contains a table with details of the tender (see Figure 4.1):

UK TREASURY BILL TENDER

	Jul 1	Jun 24		Jul 1	Jun 24
Bills on offer	£800m	£800m	Lowest accepted yield	4.5400%	4.6400%
Total of applications	£6093m	£3921m	Ave. rate of discount	4.5179%	4.6246%
Total allocated	£800m	£800m	Average yield	4.5694%	4.6786%
Highest acpt yield	4.5750%	4.6900%	Offer at next tender	£800m	£1500m
Allotment at min. level	46.8%	10%	Highest acpt yield 28 days	4.6900%	4.7390%

Information shown relates to the three month tender. Source: DMO.
For additional information, including details of the one month tender, see www.dmo.gov.uk

Fig. 4.1 UK Treasury bill tender

- **Bills on offer, total of applications and total allocated**: the value of the bills on offer on each occasion is £800 million and the value of the total applications to buy those bills is a measure of market enthusiasm for them. In this example, the later tender was much more oversubscribed than the earlier one. The factor by which an issue is oversubscribed is known as the auction's cover. Since there is almost invariably oversubscription, naturally the total allocated is the same as that offered.
- **Highest accepted yield and allotment at minimum level**: the former is the highest discount from face value accepted, implying the lowest accepted bid. The bid is lower than the redemption price so that the purchaser can make money on the difference. The allotment is simply the proportion of the bills sold at the highest yield; the rest would have been sold for higher prices (lower discounts).
- **Lowest accepted yield, average rates of discount and average yield**: the lowest accepted yield indicates the highest prices paid, with the average rate calculating in the discount on the bills sold for lower prices. The discount rates do not correspond exactly to the actual discount since they are presented as annual rates even though the bills mature in three months. Loosely speaking, these are the rates a buyer would earn for purchasing four consecutive bills. The discount rate is calculated as the difference between the purchase and redemption prices as a percentage of the latter. In contrast, the average yield is the difference as a percentage of the former. Thus, it corresponds to any other current yield, that is, annual return divided by current market price.

The discount houses have a special relationship with the Bank of England that is central to the implementation of monetary policy. First of all, they act as marketmakers in the money markets and, as such, they are obliged to cover the amount of bills on offer in a Treasury bill tender as well as having a bid price for other bills of exchange and certificates of deposit. These then are their assets; their liabilities are deposits by banks of what is known as call money. This is money borrowed at interest rates lower than the discount houses earn on bills (again, as marketmakers, they are obliged to take the deposits), but which can be withdrawn at very short notice.

Discount houses can take on these obligations because the Bank stands behind them as the "lender of last resort". If they run short of funds, either because banks have withdrawn money or because they have been obliged to purchase other money market instruments, perhaps the weekly Treasury bill tender, they can go to the Bank. The Bank every day estimates the market's fund shortage and usually meets it by buying bills from the discount houses. In doing this it is injecting funds into the whole financial system; if instead it sells bills, it is withdrawing funds, effectively mopping up surplus money. This is known as open market operations and is one of the means by which it controls the money supply.

Interest rates and monetary control

The extension of this control is how the Bank of England manipulates the level of interest rates. Since it deals actively in the bill markets through open market operations, it is in a position to create a shortage of cash when it wishes to. In that case, the discount houses are obliged to borrow, and as the lender of last resort, the level at which the Bank provides funds is an indication of the level of short-term rates of which it approves. These rates can then be used to influence rates across the whole economy.

As the previous three chapters made clear, the rate of interest, that is, the price of money, is one of the most powerful forces in the financial markets. Under the relatively free market approach of recent UK governments, interest rates have been allowed, for the most part, to be determined by market forces with the Bank's guidance. But with this system the Bank has to be careful to give only very subtle indications of where it wants rates to go: if it alerts the market to its intentions, the force of expectations will have immediate ramifications throughout the economy as traders discount the future. More recently, it has become quite directive in setting rates under the monetary arrangements established in May 1997.

Another method of controlling the money supply is using direct controls on bank lending, aiming to limit money multiplier effects. This might be achieved by changing banks' reserve asset ratios, that is, the proportions they keep liquid from any given deposit, by imposing limits on total bank lending or consumer credit, or simply by persuading bankers to restrict their lending. A further technique, which was popular in the United Kingdom from the late 1970s to the late 1980s, is setting targets for monetary growth. One target was the monetary base, which consists of cash in circulation plus banks' deposits at the Bank of England.

The last way in which the Bank of England acts in the financial markets is with foreign exchange, where it may intervene to try to raise or lower the value of sterling. This again can be done through short-term interest rates: usually raising them attracts investors into buying sterling, while lowering encourages selling. The Bank might also work on the currency by using its official reserves of foreign currencies to buy pounds and, through the weight of its intervention, push up its value or at least hold it steady. But nowadays, with the vast speculative volume of transactions in the foreign exchange markets, a successful intervention may need international cooperation. A government acting alone is no longer able to manage the financial markets or its national economy.

Central bank independence

Management of the economy through monetary policy used to be the preserve of monetarists, who focused on the importance of controlling the money supply as a way of keeping inflation in check. But monetary policy also affects growth: it is said to be neutral if the level of interest rates neither stimulates nor slows growth. If the interest rate rises, monetary policy might restrain consumer spending and encourage savings, hence reining in growth. Nowadays, the key roles of monetary policy in economic management of demand and inflation are almost universally acknowledged: the question is more one of who should control it, the government or independent monetary authorities.

The argument for central bank independence is that governments are poor at managing their economies, providing monetary accommodation not only for their own deficits, but also for wage claims, oil shocks and so on. This has caused inflation: since government control of the money supply is open to manipulation in response to political expediency, there is a built-in inflationary bias. The bias can only be removed by handing control over to the central bank, which will be free of political pressures. The central bank can then pursue its twin goals of monetary and financial stability, a sound money supply and a safe financial system.

The issue of central bank independence became particularly important in the United Kingdom as a result of the failure of the Conservative government's monetary policy in 1992. This policy, discredited by circumstances, was to control inflation and pursue economic convergence with fellow members of the European Union, by keeping the pound in the exchange rate mechanism (ERM) of the European Monetary System (see Chapter 16). After the collapse of this policy, the government aimed to restore its credibility in "the fight against inflation" by greater openness and an enhanced role for the Bank of England.

Following the election of the Labour government in May 1997, this role was extended with the Bank being given full operational independence to set short-term interest rates. Under the new monetary arrangements, the Chancellor of the Exchequer gives an annual remit to the Bank containing relatively precise objectives it is expected to pursue. That remit is an inflation target for the Consumer Prices Index (CPI) of 2 per cent. Without prejudice to this target, the Bank is expected to set interest rates so as to support the general economic policies of the government.

Interest rate decisions are taken monthly by a nine-member Monetary Policy Committee (MPC), five of whom are Bank officials and four of whom are "outside members", typically leading academic economists from Oxford, Cambridge or the London School of Economics (though since 2003 including former *Financial Times* editor Richard Lambert). The MPC's inflation target is "symmetric", which means that inflation should never be more than one percentage point outside the target on either side. But reaction to MPC interest rate decisions tends to be anything but symmetric: plaudits flow in when rates are cut, but when they rise, out come the knives.

This adverse sentiment has been particularly strong because of a growing sense that the economy is returning to an era when low inflation is the norm rather than the exception. In recent decades, booms have always been followed by bust as the economy hits physical and human capacity constraints and prices and wages are bid up. Now though, it is widely argued, a combination of technology and global competition has increased capacity by raising productivity and potential growth as well as making it far more difficult for companies and workers to raise their charges.

Former MPC member DeAnne Julius is a leading "new economy" thinker and consistently argued for lower rates than her colleagues. She explains the inflation benefits of globalisation: "In a more integrated global economy, it is the world output gap that matters for many prices, not domestic supply capacity. If there is spare world capacity in goods or services that can be transmitted actually or virtually across borders, then their prices will remain low or even fall. And supply bottlenecks at the global level are much less common."

Many new paradigm enthusiasts, particularly in the United States, translate their rosy view of global economic prospects into an equally positive prognosis for equity markets. But even if the world is moving into a new era of low inflation driven by technology and global competition, it is by no means clear that this is good news for market valuations. If companies face an increasingly tough time raising their prices, then this is likely to be bad for profit margins and ultimately for share prices. As former MPC member Professor Willem Buiter argues, while there will continue to be firms such as Microsoft that dominate their markets and justify high valuations, there will be many more dogs with poor profitability prospects in both the short and long term.

Forecasting the economy

Forecasts play an important role in determining the policies of governments as well as companies and investors. These may be based on models of overall developments in the aggregate national or global economy: such models can be used to forecast shifts in demand across different markets, growth in total world trade, or changes in inflation, interest rates or unemployment. Or they may be models of parts of the economy: disaggregated forecasts may relate to developments in particular industrial sectors or regions of the world; while even more specific forecasts may relate to a single product or asset.

Basic approaches to forecasting simply extrapolate the past; they are merely a way of articulating present indications. More sophisticated models attempt to understand the source of past changes and build it into their forecasts. This requires a detailed knowledge of economic history and economic principles; even then, however, forecasting is by no means an exact science. But, while the accuracy of economists' predictions is frequently a target of jokes about the profession, forecasting remains an essential pursuit. As conducted at its most general level, by national governments and by global organisations on behalf of groups of countries, it drives all aspects of their economic policy.

Government forecasts are primarily concerned with forecasting the movement over time of macroeconomic variables: output, inflation, unemployment, interest rates and so on. They derive from large-scale macroeconomic models of the economy, and are usually produced every three to six months. In the United Kingdom, for example, the Treasury produces a central forecast at the time of its annual budget in March, which is then published again in revised form six months later.

Treasury forecasts include each component of the economy that contributes to overall growth: retail sales, manufacturing output and so on. But even models as detailed as that are more systems of managing information than accurate representations of real economies. Thus, while they can be expected to describe the present reasonably accurately, they cannot be relied on to forecast the future and get it right. Nevertheless, government forecasts are very much tied to the levers of economic policy, as well as the government's underlying beliefs about the way the economy works, and there can often be conflict between the ideas on which forecasts and policy are based.

A country's monetary authorities also typically produce an economic forecast, though it is not always published. The Bank of England, for example, is currently barred from publishing its full forecast in case it clashes with that of the Treasury. However, its quarterly inflation report does contain prognostications on current and future inflationary pressures. The more independent Federal Reserve ("the Fed") in the United States presents a half-yearly report containing its economic projections to Congress.

Central bank forecasts may well derive from models of the economy that are a little biased towards the levers of monetary policy, those over which the banks hold most sway. Such forecasts are sometimes criticised for being based on a view of the economy that focuses on a symptom (inflation) of poor economic performance, rather than deeper structural weaknesses, and which relies on monetary policy alone as a cure.

Economic policy

Treasury and central bank forecasts represent governments' views of the future. In conjunction with their stated economic goals, these form the basis for the planning and execution of economic policy. For example, the essence of the present UK government's ambitions can be encapsulated in the phrases "no return to boom and bust" and "raising national productivity, competitiveness and growth". The macroeconomic means by which it pursues these goals (in conjunction with the Bank) are monetary, fiscal and exchange

rate policy, while the actual levers used to intervene in the economy are interest rates and decisions on taxation and public spending. These policies can have as important implications for the private sector as the forecasts.

The budget and short-term economic forecasting are intimately related, forming a central plank of overall economic policy. The macroeconomic task of the budget is to get the level of the surplus or deficit right: first, in terms of its effects on demand (will reduced taxes or increased spending boost demand and output?); and second, in terms of its effects on real interest rates (will an excessive debt ratio lead to a rise in interest rates, "crowding out" private investment?).

Monetary and exchange rate policy relate more to inflation and international competitiveness. They, too, are intimately related in that interest rates, the primary tool of both, can be used to target either the money supply or the exchange rate, but not both. From a manager's point of view, both goals are important, one in terms of the rate and predictability of inflation, the other in terms of the level and predictability of the exchange rate.

On the supply side of the economy, government policy can have direct effects on corporate and investor behaviour. For example, in the product markets, competition and regulatory policy, through government departments and such institutions of market regulation as the Competition Commission and the Office of Fair Trading, can be important in the provision of a stable business environment and the improvement of industrial performance. In the labour markets, tax incentives, education and training, and a host of other policies might boost productivity and competitiveness. The present UK government is particularly focused on the degree of competition in different industry sectors; the barriers to faster progress in electronic commerce and other aspects of the "new economy"; what can be done to address skill deficiencies in both the new technologies and elsewhere; and how to encourage greater levels of innovation, entrepreneurship and venture capital.

Credibility and the political business cycle

Economic policy is typically put together with a set of national objectives in mind: low inflation, full employment, no new taxes and so on. Certainly, these goals are the slogans by which governments get themselves elected, or otherwise. For example, from 1979 to 1992, the UK Conservatives found that they could win elections by focusing on tax and inflation, and without a great deal of concern for unemployment. Elections have been won and lost on the basis of actual or distorted economics, such as the "Labour's tax bombshell" claim of the 1992 campaign.

But elections are also won and lost over the government's perceived management of the economy and its actual delivery on election pledges. Bill Clinton's 1992 campaign's frequent reminder, "it's the economy, stupid", for example, was a reflection of public perceptions of the failure of the Bush administration to ameliorate the recession, and the breaking of its promise not to raise taxes. Failure to deliver is often a result of politicians' omitting to explain how difficult the fulfilment of economic ambitions might be when they are campaigning for office. This is most conspicuously the case in the former communist

states where the fruits of market economic success will not be shared immediately by a large section of the population, as a result of which they often hanker for the old days.

Government economic credibility can also be strained when its policies are blown apart by events, as happened to the UK government with sterling's exit from the ERM. In this case, the government's primary objective was low inflation, and the means by which it was pursued, exchange rate policy through the ERM. Although inflation targets became a good alternative policy goal and relatively low inflation was maintained, Black Wednesday saw a sharp collapse in public confidence in the government's ability to handle the economy, a loss of credibility that eventually resulted in its devastating defeat at the 1997 election.

The importance of the economy to the electoral process has led to what is called the political business cycle, as governments attempt to achieve favourable economic circumstances at election time. For example, by engineering a boom before an election they might set the business cycle in motion, so that expansionary policies to boost incomes, reduce unemployment and maintain power must be followed by contractionary policies to limit inflation. For the present UK government, higher public spending on health and education has been the chosen course, but this could cause longer-term problems for the level of interest rates and inflation. Electoral success also requires the elusive "feelgood factor", and, most importantly, government credibility as an effective economic manager.

Credibility extends importantly to business and financial market confidence in the government's ability to achieve its objectives. For example, UK Treasury forecasts are often criticised for being as much an expression of what the government would like to see happen, as what they expect to happen; they are sometimes seen to be more akin to some companies' annual budgets, incorporating desirable rather than necessarily achievable targets. There is an element here of using forecasts as a means to the goal, perhaps trying to talk inflation down or maybe even keep recession at bay.

Regulating the markets

The overall objective of government economic policy is to secure sustainable economic growth and rising prosperity. This is primarily implemented through the macroeconomic policies outlined earlier, but the government also uses microeconomic policies, aiming to improve the efficiency of markets. In the context of the financial markets, this involves regulation through various measures to promote competition, to protect investors and depositors, and to preserve financial stability.

Financial services regulation plays a key role in securing market efficiency, but a competitive and versatile investment industry must be underpinned by adequate protection of investors and depositors. In setting the framework of regulatory rules, the government must aim to leave firms free to innovate and compete in an increasingly international market. At the same time, investor confidence requires open, free and fair markets in which all participants adhere to best practice.

The UK government, for example, encourages investors to follow five golden rules of investment to avoid being vulnerable to pressure selling of inappropriate financial products. These are that the buyer should always beware (*caveat emptor*); that investors should spread their investments; that they should seek good advice; read the small print; and recognise that authorisation by a government agency is not a guarantee. For companies and financial institutions, the government emphasises the need to provide full disclosure of all relevant material and to follow the codes of business conduct directed by such regulatory bodies as the Financial Services Authority (FSA) and the Competition Commission.

There are essentially two approaches to regulation: statutory regulation via legislation, and self-regulation where industry participants are encouraged to set their own rules and enforcement procedures. In the United States, the system of financial regulation is more orientated towards statutory regulation. It is primarily under the direction of the Securities and Exchange Commission (SEC), a government agency that closely monitors the activities of stockbrokers and traders in securities, and also monitors takeovers. If, for example, an individual or company acquires 5 per cent or more of the equity of another company, the SEC must be informed. There are also more specialised agencies such as the Commodity Futures Trading Commission, which oversees derivatives trading.

In the United Kingdom, the bias is more towards self-regulation within the framework of the 2000 Financial Services and Markets Act. Under its provisions, anyone involved in investment business has to be authorised by the FSA – until October 1997 known as the Securities and Investments Board (SIB) – an independent non-governmental body with statutory powers. The FSA board is appointed by the Chancellor of the Exchequer and consists of a chairman, a chief executive officer, three managing directors, and 10 non-executive directors. The FSA has four main aims:

- to maintain confidence in the UK financial system;
- to promote public understanding of the financial system;
- to secure an appropriate degree of protection for consumers;
- to contribute to reducing financial crime.

In pursuing these objectives, the FSA bears in mind: the need to be efficient and economic in its use of resources; the responsibilities of regulated firms' own managements; the need to balance the burdens and restrictions placed on firms with the benefits of regulation for consumers and the industry; the desirability of facilitating innovation in the financial sector; the international character of financial services and markets and the desirability of maintaining the competitive position of the UK; and the value of competition between financial firms.

The main purpose of the 2000 Financial Services and Markets Act was to provide a single legal framework for the FSA in place of the different frameworks under which the various regulators then operated. As a result, most of its provisions represent consolidation of existing law or self-regulatory requirements. The main new provisions of the Act were: powers to impose financial penalties on those who abuse investment markets, for example by insider dealing or market manipulation; and the role of the UK listing author-

ity, which is undertaken under substantially the same powers as previously exercised by the London Stock Exchange.

The borrowing, asset-creating side of the market is also regulated by a combination of legislation and monitoring. Company behaviour falls under various Companies Acts enforced by the Department of Trade and Industry, while the provision of figures (and the requirement that companies give a "true and fair view" of their status) comes under the control of the Financial Reporting Council and the Accounting Standards Board. In the market for corporate control, the key institutions are the City Panel on Takeovers and Mergers, the Competition Commission and the Office of Fair Trading.

Banks are regulated under the 1987 Banking Act and supervised by the FSA. The Bank of England has general responsibilities to protect the stability of the financial system and to be the lender of last resort in the event of a liquidity crisis. But the FSA also has the specific role of supervisor of the UK banking sector with the power to regulate banks and protect depositors.

Beyond the United Kingdom, the single market in financial services requires common access and minimum standards throughout the European Union. This is achieved by vesting in member states responsibility for authorisation of investment business participants, and continuing prudential supervision. Providers of financial services are entitled to do business across the Union solely on the basis of their home authorisation.

Recent international scandals such as the collapses of Barings Bank and of the Bank of Credit and Commerce International (BCCI) have raised an important question about financial regulation: whether the globalisation of money, markets and information has put some companies and financial institutions beyond the reach of regulation. It seems clear that financial innovation, technology and the globalisation of investment have created a fragmented market for which the current rules may no longer protect investors. In particular, regulators fear that there may be gaps between the national and sectoral areas of supervision, and variations of standards that can give comparative advantage to one country's financial sector. Efforts to tackle the problem of "regulatory arbitrage", where companies can take advantage of different rules and governments are tempted to loosen domestic rules to gain advantage, focus on refining the rules on capital requirements (the ability of institutions to meet their creditors' needs), on increasing disclosure and on improving international cooperation.

PART 2

Interpreting the markets

“Information is the key input to the market. In an efficient market, prices immediately reflect all the available information.”

Peter Bernstein

“Work the other side of the street! The nonpredictability of future prices from past and present prices is the sign, not of failure of economic law, but the triumph of economic law after competition has done its best.”

Paul Samuelson

5

Stocks and shares

The UK equity markets

- **The London share service** – reading the figures for the London stock market and using the information: evaluating weekly performance; other share dealings; trading volume; rises and falls, highs and lows, main movers; winners and losers
- **Issuing new securities** – how new companies are launched (offers for sale, placings, introductions, rights issues, popular privatisation issues); how extra funds are raised for existing companies (rights offers)
- **Directors' dealings**

An equity is a stake in a company, a risk-sharing ownership of a part of a company's capital. The buyer of a share receives the rights to a probable flow of income in the form of dividends (which vary with the profitability of the company) and a potential capital gain. The UK equity markets trade stocks across a wide spectrum of firms, ranging from established blue chip companies to higher risk ventures. *Financial Times* coverage of UK equities, the shares in UK companies that have a stock market quotation, consists of four main interlocking components:

- A daily report of the most interesting trading features in the stock market.
- The share prices of individual companies and various financial ratios based on those prices.
- Detailed reports and comment in the news pages of the paper on events in company life.
- A number of stock market indices, which chart the overall progress of equity share prices.

UK company news was explored in Chapter 2, while indices are the subject of the next chapter. This chapter focuses on *Financial Times* reporting on the market for UK equities, as reflected in its stock market reports and the London share service.

Coverage of the UK equities market begins with reports on the London Stock Exchange on the back page of the Companies & Markets section. This is headed with an overview of the movements in the stock market indices of the previous day and possible reasons for them, as well as highlights of individual sectors that have moved significantly or that have been particularly prominent in trading. It also examines the main share price movements of the day in individual stocks, and suggests reasons for them. Particularly important movements are explored in separate stories further down the page.

The London share service

This is the most complete record of UK stock market statistics readily available to the public and covers around 3,000 shares. That is practically all of those actively traded in the London stock market, together with gilt-edged stocks, already mentioned in Chapter 4 and discussed in more detail in Chapter 11.

The London share service is divided into various industrial classifications, derived from the groupings used in the FTSE Actuaries All-Share index discussed in detail in the next chapter (see Figure 6.4). Categorisation in this way allows easy comparison of companies within the same industrial sector.

The share service covers not only companies that have a full stock market listing, but also the 1,200 or so companies quoted on the Alternative Investment Market (AIM). The AIM has less onerous listing requirements than the main market and is designed to encourage smaller, fast-growing businesses to seek a quotation. Generally, there is less trading in AIM stock and, hence, shares may be less easy to buy and sell.

The standard version of the share service is published on Tuesday to Saturday in the Companies & Markets section of the newspaper. Figure 5.1 features four sample industrial categories from the daily London share service, annotated with brief explanations of price, price change and year high and low, volume, yield and price/earnings ratio.

	Notes	Price	Chng	52 week high	52 week low	Yld	P/E	Vol '000s
AEROSPACE & DEFENCE								
BAE SYS	✠♣	289	−2½	291½	199¼	3.3	16.8	35,419
7¾pCvPf		143¾	−1¾	145½	124¼	5.4	–	–
Chemring	†	490½	−1	491½	373½	1.9	13.4	79
Cobham	♣	1367	−32	1460	1237	2.3	14.5	370
Hampson	q	21¾	−1½	30	18¼	–	78.5	262
Meggitt	♣	297½	−3¼	300¾	208	2.4	19.0	2,756
Rolls-Ryc	v	292¼	−8¾	301	223½	2.8	20.1	30,116
Smiths	†	927	−18	945	9¼	3.0	20.9	5,295
Thales€	♣	£22 13/16	−3/32	£25 1/16	£18	2.3	27.2	877
UMECO	♣	482½	−3	487½	350½	2.8	ф	5
UltraElc	♣	803	−26	829	615	1.7	18.2	105
VT	xd	340¾	−5¾	357	255¼	2.9	16.4	429
AUTOMOBILES & PARTS								
AvonRubr	♣	205	+½	241½	183½	4.1	16.1	168
Caffyns	♣	760xd	−5	940	627½	3.2	ф	1
EuroMtr	q	266½	−7½	274	187½	3.6	7.7	30
FordMtr$		£5 27/32	−1/16	£8¼	£4 23/32	3.9	6.5	3,067
GKN	♣	255¼	−3½	268¾	202	4.7	14.2	4,823
HR Owen	♣	169½	.....	235	162½	5.9	51.0	6
HondaMtr Y		2801	+28½	2867	2457½	0.8	10.5	1,715
Inchcape	♣	1992	−31	2092	1478	2.5	11.9	387
Lookers	♣	315½	−5	340	278½	3.8	5.0	18
Mid-Sts		15¼	.....	16	13¼	–	89.7	–
Pendragn	♣	294	−9¾	331¼	261	3.5	9.2	237
Torotrak		61½	−1½	77½	39	–	–	239
Toyota Y		£21 3/32	+3/16	£22 7/16	£18¾	1.6	11.9	4,892
VardyR	♣†	522½	−2½	535	413	3.1	9.7	40
Volkswgn €		£26 5/32	−5/32	£26 13/32	£20 17/32	2.8	ф	32
Wagon	q	160	−2½	199½	159½	5.8	–	23
7¼pCvPf		101¾	.....	102½	92	7.1	–	–
BANKS								
Alnce&Lei	♣	866½	−26½	947½	795½	5.6	10.3	2,833
AlliedIr€		1189	−6¾	1202	810½	3.4	14.1	4,669
AngloIr€	♣	718¾xa	+19¾	*718¾	426	1.1	ф	1,303
ANZ A$	†	906½	−5¾	942½	683¾	4.9	13.2	4,628
BSCH €	†	660¼	+7½	670¾	441	2.8	15.1	33
BankAm $	♣	£25 13/32	−1/16	£26 1/32	£22½	4.5	11.0	8,297
BankIre€	†	914¼xd	+9	**914¼**	695	3.4	–	2,321
BkNvaS C$		£18 31/32	+¼	**£18 31/32**	£14 7/16	3.4	13.6	654
Barclays	✠	549	−11½	614	443	4.4	10.6	64,861
Brdford&B	♣	328¾	−5	349¾	251½	5.2	12.7	3,370
CanImp C$		£35 3/8xd	+9/32	**£35 3/8**	£25 5/8	3.6	17.4	215
Egg		104¼	.....	158½	89¾	–	–	1,282
EsprtoS $		£15	+3/32	**£15**	£11 1/32	0.7	–	–
Fortis €	♣	£15 17/32	+1/32	£15 23/32	£11 15/32	3.1	8.7	3,194
HBOS	✠q	871	−7	886	663	3.8	11.2	26,733
9¼%Pf		149¼	+¼	156	134	6.2	–	–
9¾% Pf		159¼	+¼	163¾	141	6.1	–	–
HSBC	✠†	902	−6	953½	784	4.3	13.7	67,224
LlydsTSB	✠♣	472¾	−6¼	509	391¾	7.2	10.5	44,267
MitsubTk Y		£4827 7/32	+65 13/32	£5666 7/32	£4319 3/32	0.6	10.8	15
Mizuho Y		£2544 7/16	+26 7/16	£2684 9/16	£1973 31/32	0.6	–	25
NtAus A$		1283¼xd	+½	1330¾	1015	5.5	15.3	4,100
NrthnRck	♣	789	−10½	827½	686½	3.4	10.7	3,017
RylBkCC$		£35 1/16	+5/16	**£35 1/16**	£24	2.9	15.9	329
RBS	✠♣	1674	−23	1833	1464	3.5	10.0	24,313
StandCh	✠	1040	−21	1061	868	3.2	14.3	4,690
7⅜%cPf		125¼	.....	128	111¼	5.9	–	–
8¼%cPf		138½	.....	144	123¼	6.0	–	–
Trnto-DomC$		£25½xd	+7/16	**£25½**	£17⅝	2.9	16.3	583
UFJ Hldgs Y		£2959 15/16	+34 23/32	£3209 13/32	£1990 27/32	–	–	10
Westpc A$	†	821	−6	851¾	629¾	4.8	14.9	4,526
BEVERAGES								
AldDomq	✠♣♦†	681½xd	−2	699½	428¾	2.4	20.3	36,018
Barr(AG)		1015	−12½	1027½	657	2.8	17.3	12
C&C €		263¾xd	−4¼	268	158½	3.5	ф	555
Diageo	✠†	805	−33½	838½	657½	3.5	16.9	42,802
Kirin Y		542¾	−2½	553	465¼	1.3	20.9	1,859
SABMiller	✠♣q	866xd	−13½	890	657	2.4	14.7	7,265
Scot&New	♣	476¼	−12	488¼	375	4.3	19.9	12,937

Volume of shares traded

Dividend yield

Previous day's closing market price in pence

Price to earnings ratio

Price change from the day before

Share price high and low in the past 52 weeks

Fig. 5.1 London share service (daily)

Reading the figures

- **Name and notes:** the first column lists the company name or its abbreviation, plus various symbols representing particular features of its shares.
- **Price:** the second column shows the average (or mid-price) of the best buying and selling prices (in pence) quoted by marketmakers at the 4.30pm close of the market on the previous trading day. If trading in a share has been suspended, perhaps because the company in question is involved in takeover negotiations, the figure shown is the price at suspension and this is indicated by a symbol. The letters "xd" following a price mean ex-dividend, and indicate that a dividend has been announced recently but that buyers of the shares will not be entitled to receive it.
- **Price change (plus or minus):** the third column gives the change in the closing price compared with the end of the previous trading day.
- **Previous price movements:** the fourth and fifth columns show the highest and lowest prices recorded for the stock during the past 12 months.
- **Dividend yield:** the sixth column shows the percentage return on the share. It is calculated by dividing the dividend by the current share price.
- **Price/earnings (p/e) ratio:** the seventh column is the market price of the share divided by the company's earnings (profits) per share in its latest 12-month trading period. Yields and p/e ratios move in opposite directions: if the share price rises, since the dividend remains the same, the dividend yield falls; at the same time, since the earnings per share are constant, the p/e ratio increases.
- **Volume:** the last column shows the number of shares traded the previous day rounded to the nearest 1,000. Dashes indicate either that no trade has taken place or that data are unavailable.

Using the information

The first indicator to look at in a share is its price. This is a reflection of the discounted value of future dividend payments plus a premium for the risk that the company may not pay dividends in the future and/or go under. On its own, though, it conveys minimal information since it needs to be seen in the context of its history and possible future.

The figures for high and low provide some of the historical perspective on the share price. If, for example, the present price is a long way below its high point for the past 12 months, and performing against the market trend, the indications are that the market is expecting trouble. The reverse is true in the case of a share that is pushing up strongly to new points when the market or its sector is not. The difference between the high and low also gives an indication of the price volatility of the stock.

The prices quoted are mid-prices between the bid or buying price and the offer or selling price at which marketmakers will trade. The difference between bid and offer is known as the spread, and it represents marketmakers' profit on any given transaction, a

reward for taking the risk of making the market. The implication of this spread is that investors will only be able to buy at a higher price and sell at a lower price than that printed in the newspaper. Of course, since the share service is, in effect, merely a historical record of prices the previous day, actual prices subsequently may be very different.

Volume is an indication of the liquidity of a stock – how easy it is to buy and sell. High volume is preferable to low volume but note that large companies are traded much more heavily than small ones. And it is normal for volumes to be high when a company makes an announcement.

Dividends depend on profits, which in turn depend on the quality of a company's management and the state of the economy. The dividend yield, though, since it is partly determined by the current share price, is a reflection of the way that the market values a share. If the company is thought to have a high growth rate and a secure business, then its current dividend yield will probably be relatively low, since the scope for increasing dividends in the future ought to be above average. Sales will be expanding, earnings growing, and often investment in new products and new capital goods will be substantial.

If, by contrast, the company is involved in a mature or dying industry or is exposed to high levels of business or political risk, its dividend yield will normally be high. Thus, the yield on a share can be a valuable indicator when an investor is deciding between income and capital growth from an investment. For example, a growth stock, perhaps in high-technology industries, suggests a preference for capital appreciation, while a share in a company in a mature industry like textiles would indicate a desire for income.

$$\text{Dividend yield (per cent)} = \frac{\text{dividend per share} \times 100}{\text{share price}}$$

Of course, as we saw in Chapter 2, the dividend is, to some degree, an arbitrary figure, decided at the whim of the company. Hence the figure for yield is not always a good indicator of the value of a share. Price/earnings ratios are generally better since they are independent of possibly arbitrary corporate decisions.

Price/earnings ratios are the most commonly used tool of stock market analysis. Essentially, they compare a company's share price with its annual earnings, indicating the number of years it would take it, at its current earning power, to earn an amount equal to its market value. Shares are often described as selling at a number times earnings or on a multiple. In general, the higher a company's ratio, the more highly rated it is by the market: investors expect the relative expense of the company's shares to be compensated for by higher-than-average earnings over the next few years. But high ratios can also mean that the market is expecting a poorly performing company to be on the receiving end of a takeover bid, with the predator being prepared to pay a premium for control.

High price/earnings ratios are usually associated with low yields, and certainly they move in opposite directions. Thus, a high ratio suggests a growth stock, and is, like a low yield, an indicator of an investment where capital growth might be more important than income.

Investors can use price/earnings ratios to gauge whether one company's share price is too high or too low compared with competitors with similar products and earnings performance, compared with the market as a whole, or compared with past ratios. If a p/e ratio is above average, investors expect profits to rise and, hence, their prospective dividends: the higher a p/e ratio, the greater the confidence in the company. But high ratios are often viewed as overpriced, while low ones are viewed as bargains.

Since the methods of calculating the ratios can give significantly different results, the investor's prime concern should be to use ratios that are consistent (that is, from the same source) when making comparisons. It is also important to be aware of the difference between the historic ratios in the newspaper and what the market's expectations are for the future, expressed more through forecasts of prospective price/earnings ratios. Reports on companies might also distinguish historic and prospective yields. In addition, there is a distinction between nil and net ratios: the former ignores the distribution of dividends. Chapter 18 contains some examples of yield and p/e ratios.

$$\text{Price/earnings ratio} = \frac{\text{share price}}{\text{earnings per share}}$$

Evaluating weekly performance

Monday's edition of the *Financial Times* brings some important changes to the share information service, concentrating on changes that do not take place daily. Figure 5.2 shows an example. The special weekly columns provide information on the following:

- **Price change:** the weekly percentage change in the price of the stock.
- **Dividend:** the dividends paid in the company's last full financial year. A double dagger sign shows that the interim dividend has been cut in the current financial year, while a single dagger indicates an increased interim dividend.
- **Dividend cover:** the ratio of profits to dividends, calculated by dividing the earnings per share by the dividend per share. This indicates how many times a company's dividend to ordinary shareholders could be paid out of its net profits. Another way of looking at dividend cover is as a percentage of profits: this is the way it is done in the United States where it is known as the payout ratio.
- **Market capitalisation:** an indication of the stock market valuation of the company in millions of pounds sterling. It is calculated by multiplying the number of shares by their market price. In order to calculate the number of shares in issue from the figures listed here, the market capitalisation figure can be divided by the market price. If there are other classes of share capital in issue, their value would need to be added in order to calculate the company's total market capitalisation.

	Notes	Price	W'k% Chng	Div	Div cov.	MCap £m	Last xd	City line
AEROSPACE & DEFENCE								
BAE SYS	✠♣	288½	4.3	9.5	1.8	9,262	20.4	1890
7¾pCvPf		144½xd	3.4	7.75	–	384.8	1.6	5174
Chemring	†	476½	1.3	9.4	3.9	138.6	11.5	2116
Cobham	♠	1401xd	–2.4	31.0	3.1	1,570	1.6	2627
Hampson	q	24½	.....	–	–	67.5	1'2	2817
Meggitt	♠	289xd	2.3	7.0	2.2	1,244	30.3	3331
Rolls–Ryc	v	296	4.1	8.18	1.8	5,141	13.10	3853
Smiths	†	930	2.3	27.5	1.6	5,235	23.3	4050
Thales€	♠	£22 13/16	–1.0	75c	1.6	3,918	–	–
UMECO	♠	479½	.....	13.25	ϕ	156.0	17.11	4929
UltraElc	♠	814	2.4	13.8	3.2	545.9	13.4	1363
VT	q	357xd	2.2	9.75	2.1	618.3	22.6	4874
AUTOMOBILES & PARTS								
AvonRubr	♠	194½xd	1.0	8.5	1.5	54.1	8.6	1713
Caffyns	♠	765xd	0.3	24.0	ϕ	22.0	22.6	2031
EuroMtr	q	270	–.6	9.5	3.6	144.5	3.11	3022
FordMtr$		£5⅞	4.6	40c	3.9	10,378	28.4	2342
GKN	♠	258½	–.7	11.9	1.5	1,855	13.4	2696
HR Owen	♠	172	.....	10.0	0.3	40.6	6.4	3437
HondaMtr Y		277½	2.2	Q42%	12.4	25,767	27.9	1104
Inchcape	♠	2077	1.4	50.0	3.3	1,620	18.5	2974
Lookers	♠	319½	.....	12.1	5.2	113.9	6.4	3218
Mid–Sts		15¼	.....	–	–	7.98	4'99	1845
Pendragn	♠	296	0.3	10.2	3.1	388.3	16.3	1614
Torotrak		63	2.4	–	–	73.9	–	1185
Toyota Y		£20 9/32	2.5	Q130%	5.3	73,182	27.9	–
VardyR	♠†	530¼	4.5	16.3	3.3	297.8	30.3	5348
Volkswgn €		£26	3.4	Q105c	ϕ	8,324	27.4	1135
Wagon	q	166½	–7.0	9.0	0.1	87.9	12.1	4418
7¼pCvPf		101¾	.....	7.25	–	20.7	11.5	5344
BANKS								
Alnce&Lei	♠	883	0.7	48.3	1.7	3,944	6.4	5600
Alliedlr€		119½	1.1	59.4c	2.1	10,380	2.3	1354
Anglolr€	♠	698½xd	5.5	12.03c	ϕ	4,718	11.5	1355
ANZ A$	†	925¼xd	1.1	Q105c	1.5	16,873	18.5	–
BSCH €	†	650	3.4	27.15c	2.3	40,647	1.11	–
BankAm $	♠	£25⅜	–1.0	$2.00	2.0	102,026	1.6	2198
Banklre€	†	912xd	5.0	45.6c	–	8,816	15.6	1360
BkNvaS C$		£18 7/16	0.6	$1.36	2.2	18,330	1.4	–
Barclays	✠	562	0.8	24.0	2.2	36,305	23.2	1754
Brdford&B	♠	330¾	1.5	17.1	1.5	2,098	23.3	5639
Canlmp C$		£34 13/32xd	1.2	$2.72	1.6	11,659	29.6	–
Egg		103	–2.8	–	–	849.2	–	5503
EsprtoS $		£14 31/32	2.6	16c	–	716.7	15.6	5187
Fortis €	♠	£15 9/16	3.5	69c	3.8	20,243	31.5	2389
HBOS	✠q	869	0.1	32.95	2.4	33,896	16.3	5601
9¼%Pf		148½	.....	9¼%	–	445.5	4.5	–
9¾% Pf		159	0.3	9¾%	–	159.0	4.5	–
HSBC	✠†	896½xd	0.6	67c	1.7	100,580	18.5	2776
LlydsTSB	✠♣	478	1.4	34.2	1.3	26,752	16.3	4320
MitsubTk Y		£475 21/16	1.0	Q12%	14.5	31,103	3'4	–
Mizuho Y		£253¾	–1.7	Q30%	–	30,403	3'4	–
NtAus A$		1295½xd	0.8	Q166c	1.2	20,220	8.6	–
NrthnRck	♠	804½	0.5	26.5	2.8	3,388	27.4	5604
RylBkCC$		£34 17/32	2.5	$2.20	2.2	22,323	27.4	–
RBS	✠♣	1696	–1.2	58.0	2.9	53,965	9.3	3874
StandCh	✠	1042	1.8	57½c	2.2	13,542	23.2	4094
7⅜%cPf		125¼	0.4	7.37	–	125.2	16.3	1719
8¼%cPf		138½	0.2	8.25	–	138.5	16.3	1428
Trnto–DomC$		£24 17/32xd	0.7	160c	2.1	17,581	15.6	–
UFJ Hldgs Y		£2922	1.4	–	–	15,093	3'4	–
Westpc A$	†	846¾xd	3.3	Q93c	1.4	15,259	1.6	–
BEVERAGES								
AldDomq	♠♦†	681xd	0.9	16.17	2.1	7,535	8.6	1550
Barr(AG)		1027½	0.2	28.75	2.0	200.0	4.5	1765
C&C €		254¼xd	4.9	13c	ϕ	816.3	20.10	–
Diageo	✠†	824	1.4	28.35	1.7	24,430	2.3	2791
Kirin Y		547	1.3	Q28%	3.6	5,385	27.12	1119
SABMiller	✠♣q	886	3.1	20.5	2.8	9,762	1.12	1699
Scot&New	♠	466¾	–2	20.62	1.2	4,170	30.3	3944

Dividend paid in the last financial year

Ratio of profits to dividends

Market capitalisation in millions of pounds

Last date the share went ex-dividend

Cityline code

Fig. 5.2 London share service (weekly)

- **Ex-dividend date:** the last date on which a share went ex-dividend, expressed as a day and month unless a dividend has not been paid for some time, in which case the date might be a month and year. On and after this date, the rights to the last announced dividend remain with the seller of the stock. What happens is that the share register is frozen on the xd date and the dividend will be paid to the people on the register at that time. Until it is paid, buyers of the share will not receive the next payment. The price is adjusted down a little to account for this.
- **Cityline:** the FT Cityline code by which real-time share prices are available over the telephone by calling 0906 003 or 0906 843 plus the four-digit code for any given share. This telephone information service is designed primarily for investors wanting to keep track of their own investments or the activity of the UK and world stock markets at any point during the day or night.

The key information from this listing is the figure for dividend cover. This indicates how safe the dividend is from future cuts. The higher the figure, the better able the company will be to maintain its dividend if profits fall. Even at a time of losses, a company may decide to pay dividends out of its reserves, though this clearly could not continue indefinitely.

A relatively high dividend cover may also reflect a commitment to investment and growth, implying a substantial retention of earnings to be ploughed back into the business. Contrariwise, if the dividend cover is too high, the shareholders may complain that the company should increase its payout. Chapter 18 contains some examples of dividend cover.

$$\text{Dividend cover} = \frac{\text{earnings per share}}{\text{dividend per share}}$$

Market capitalisation is a measure of the size of a company. Since the total value of a company's shares will rise and fall according to its financial results, it is a good guide to performance over time. It also has advantages over other yardsticks of size: it gives a proper weighting to banks and commodity groups, which get distorted in lists based on turnover; and it takes account of loss-making companies, which disappear from lists based on profits.

$$\text{Market capitalisation} = \text{number of ordinary shares} \times \text{share price}$$

Other share dealings

Financial Times share price coverage is expanded weekly on ft.com to cover dealings in securities that are not included in the standard share information service (see Figure 5.3). This covers many fixed interest securities issued by companies, as well as dealings in some smaller company shares and securities where the principal market is outside the UK. The actual selection varies according to whether a stock has been traded during the five trading days ending each Thursday. If it has not been traded, it will generally not be included. Information is provided on:

Fig. 5.3 London Stock Exchange: dealings

- **Name and stock type:** Chapter 2 detailed some of the different forms of corporate finance available, and these securities provide a number of examples. Reckitt Benckiser plc's 5 per cent cumulative preference shares with a par value of £1, for example, are shares that pay a fixed dividend, 5 pence. The payment can be suspended in the event of losses, but when the company returns to profit, all dividends in arrears are guaranteed to be paid ahead of dividends on ordinary shares.
- **Prices:** these are reproduced from Thursday's Stock Exchange official list. They show the prices at which business was done in the 24 hours up to 5.15pm on Thursday. For shares where no business was recorded during that period, the latest recorded business in the previous four days is listed with the relevant date.

Trading volume

The back page of the newspaper's Companies & Markets section includes a useful reference table with the trading volume and basic price information for the constituents of the FTSE 100 index, the largest capitalised and typically most actively traded stocks, which are discussed in detail in the next chapter and listed in Appendix 2 (see Figure 5.4). The information includes:

TRADING VOLUME

FTSE 100		Vol 000's	Closing price	Day's change
3i		4,274	690	-11½
AMVESCAP		41,571	408	+13
Alliance & Leicester	♣	2,833	866½	-26½
Alliance UniChem		839	839	-11½
Allied Domecq	♣	36,018	681½	-2
Anglo American	♣	6,516	1303	-21
Antofagasta		994	1230	-13
Assoc. Brit. Foods	♣	2,141	827	-17
AstraZeneca	♣	7,843	2350	-11
Aviva		18,092	611	-14
BAA		20,874	599	-20
BAE SYSTEMS	♣	35,419	289	-2½
BG Group	♣	16,665	471¼	-4
BOC	♣	3,248	1027	-11
BP	♣	135,685	621½	-8½
BPB	♣	4,422	522	-11½
BSkyB		20,212	527½	-9
BT Group	♣	71,912	225½	-4¼
Barclays		64,861	549	-11½
BHP Billiton		22,957	743	-13½
Boots		10,915	601	-4½
Brambles Inds†	♣	6,324	303¾	-3¼
British Airways		79,811	260¾	-11½
Brit. Amer. Tobacco	♣	7,331	1080	-15
British Land	♣	4,135	873	-19½
Cable & Wireless		23,434	142½	-2¾
Cadbury Schweppes		19,297	537½	-5½
Carnival		4,250	3159	-71
Capita Group		8,776	360¼	-2¾
Centrica	♣	42,610	223¾	-4
Compass		38,110	238¾	-5¼
Daily Mail & Gen.	♣	2,493	660½	-13½
Diageo		42,802	805	-33½
Dixons		40,090	153¾	-3½
EMAP	♣	2,373	784	-15
Enterprise Inns		3,028	833	-23

		Vol 000's	Closing price	Day's change
Exel	♣	4,100	838½	-18½
Friends Provident		31,848	184¼	-2¼
Gallaher	♣	3,246	822	-14
GlaxoSmithKline	♣	27,434	1365	-7
GUS	♣	18,312	827	-14½
HBOS		26,733	871	-7
HSBC		67,224	902	-6
Hammerson		2,170	880½	-19½
Hanson		4,518	531	-14½
Hays		15,440	128¼	-1¾
Hilton		35,288	288¼	-9¾
ICI		17,502	254	-4½
ITV		88,022	127	-3
Imperial Tobacco		4,041	1493	-24
InterCont'l Hotels		10,746	701½	-20
International Power		8,126	204½	-1½
Johnson Matthey	♣	1,204	1070	-10
Kelda†		1,245	700½	+2
Kingfisher		48,658	240½	-7
Land Securities	♣	5,124	1388	-38
Legal & General	♣	47,252	113½	-1¾
Liberty Intl.		1,471	970	-13
Lloyds TSB	♣	44,267	472¾	-6¼
Man Group	♣	5,551	1534	-10
Marks & Spencer		14,880	348	-8¼
Morrison (Wm.)		24,294	179¼	-2¼
Natl Grid Transco	♣	37,508	524	-5½
Next		6,262	1467	-38
Northern Rock	♣	3,017	789	-10½
O2		87,704	132¾	-1
Old Mutual	♣	19,093	121	-1¼
P & O†		4,312	308¼	-7¾
Pearson	♣	11,281	658½	-9
Persimmon†	♣	4,397	780½	-16½
Prudential		39,779	502¼	-9¾
Reckitt Benckiser		6,788	1597	-22

		Vol 000's	Closing price	Day's change
Reed Elsevier		10,416	532½	-4
Rentokil Initial		12,337	155¾	-2½
Reuters	♣	12,636	389	-8¼
REXAM	♣	3,066	473¾	-8¾
Rio Tinto		8,694	1779	-16
Rolls Royce		30,116	292¼	-8¾
Royal & Sun Alliance		57,305	82½	-2½
Royal Bank Scotland	♣	24,313	1674	-23
SABMiller	♣	7,265	866	-13½
Sage Group		8,506	221¾	-2½
Sainsbury	♣	22,908	277¾	-4¾
Schroders	♣	1,313	781	-11½
Schroders N/V		143	703	-15½
Scottish & Newcastle	♣	12,937	476¼	-12
Scot. & Sthn Energy	♣	5,268	984½	-9
Scottish Power	♣	14,586	500¾	-2½
Severn Trent		5,113	979	-18
Shell Transport	♣	98,465	557	-11¾
Shires Pharms	♣	7,330	620	+1
Slough Estates†	♣	1,889	517	-12½
Smith & Nephew		5,750	538	-3
Smiths Group		5,295	927	-18
Standard Chartered		4,690	1040	-21
Tate & Lyle	♣	3,924	463½	-1
Tesco	♣	69,150	309½	-6½
Tomkins†	♣	7,218	267	-1¼
Unilever	♣	14,774	538	-8
Utd. Utilities	♣	9,288	649	-6½
Vodafone		705,283	137	-1
WPP	♣	12,163	577½	-12½
Whitbread		3,332	964½	-14½
William Hill	♣	7,392	555½	-9
Wolseley	♣	2,300	1164	-14
Xstrata	♣	3,790	1106	-17
Yell Group		2,839	432¾	-9¾

Based on trading volume for the FTSE 100 constituent companies and reserves yesterday until 4.30pm. † Indicates a FTSE 100 index reserve. All trades are rounded.
♣ Free annual report available. Call +44 (0)208 391 6000 or go to www.ftannualreports.com.
Source: FT Interactive Data.

Fig. 5.4 Trading volume

- **Volume, price and change:** the daily trading volume for these stocks plus the day's closing price and change on the previous trading day. Trading volume figures count both the buying and the selling of a particular share, so that the number of shares actually changing hands is really half of the total.

Trading volume is an indication of the liquidity of a stock. The higher the figure, the easier it will be to buy or sell significant quantities of a stock without having a major impact on its price.

Rises and falls, highs and lows, main movers

The newspaper also carries three other lists for quick reference on share price movements. First, there is a list of rises and falls for broad share categories as in Figure 5.5, which shows:

- **Rises and falls:** the daily version of this table shows how many securities rose, fell and stayed at the same price level during the previous trading session. It is broken down into nine different categories of security and shows how movements in the main share price indices were reflected in trading across various broad market subdivisions. Saturday's version also lists rises and falls on the week as a whole.

UK RISES AND FALLS

	Rises	Falls	Same
British Funds	47	0	0
Mineral Extraction	34	39	10
General Manufacturers	27	113	28
Consumer Goods	21	92	28
Services	36	308	62
Utilities	7	11	2
Financials	29	103	38
Investment Companies	20	346	157
Others	73	364	340
Totals	294	1376	665

Data based on those companies listed on the London Share Service.

Fig. 5.5 UK rises and falls

The second list covers individual stocks that have recorded new highs and lows for the past 12 months (see Figure 5.6):

- **Highs and lows:** this table shows which shares have on the previous trading day reached new high or low points for the past 12 months. If space is limited, only the number of shares in each sector is listed and not their names.

The highs and lows list helps to highlight companies that are moving against the trend of their sector. Warning signs would start to flash if a company featured repeatedly in the "new lows" section when the sector as a whole was not moving in this direction. The list can be used in conjunction with the listing of rises and falls to compare individual share price movements with overall market sector moves.

NEW UK 52 WEEK HIGHS AND LOWS

Data based on intra-day share trading in those companies listed on the London Share Service.

NEW HIGHS (73).
GILTS (3) BANKS (7) Anglo Irish, Bank Ireland, Bank of Nova Scotia, Canadian Imperial Bank, Espirito Santo Financial Hldgs, Royal Bank of Canada, Toronto-Dominion Bank, CONSTRUCTION & BUILDING MATERIALS (2) Balfour Beatty, Galliford Try, DIVERSIFIED INDUSTRIALS (5) ELECTRICITY (1) Northern Electric Pref, ELECTRONIC & ELECTRICAL EQUIPMENT (1) Xaar, FOOD & DRUG RETAILERS (1) Dairy Farm Intl, FOOD PRODUCERS & PROCESSORS (1) Highlands, HEALTH (1) Abbott Labs, INVESTMENT COMPANIES (15) LIFE ASSURANCE (1) Britannic, MINING (5) Anglo American Platinum, Northam Platinum, Precious Metals Australia, Royal Gold, Vedanta Resources, OIL & GAS (5) Imperial Oil, Lukoil, Paladin Resources, Total SA, Wood (J) Group, REAL ESTATE (2) Derwent Valley, HongKong Land Hldgs, SPECIALITY & OTHER FINANCE (3) AMVESCAP, Aberdeen Asset Mngt, Franklin Resources, SUPPORT SERVICES (3) Group 4 Securicor, PHS Group, RPS Group, TELECOMMUNICATIONS SERVICES (1) BCE, UTILITIES, OTHER (4) Northumbrian Water, Pennon Group, Terasen, Trans Can Pipe, TRADED INDEX SECURITIES (2) AIM (10) AMCO, Alkane Energy, Begbies Traynor, Debt Free Direct, Georgica, Homebuy Grp 'A', INCAT International, Stylo, Trading Emissions, Z Group.
NEW LOWS (43).
DIVERSIFIED INDUSTRIALS (1) Cosalt, ELECTRONIC & ELECTRICAL EQUIPMENT (2) Abacus, GET, ENGINEERING & MACHINERY (1) 600 Group, GENERAL RETAILERS (1) Kingfisher, HOUSEHOLD GOODS & TEXTILES (1) Games Workshop, INFORMATION TECHNOLOGY HARDWARE (1) Imagination Technologies Group, INVESTMENT COMPANIES (2) MEDIA & ENTERTAINMENT (2) Chime Communications, Maiden Group, SOFTWARE & COMPUTER SERVICES (3) Clinical Computing, Financial Objects, Surfcontrol, SPECIALITY & OTHER FINANCE (1) Berkeley Berry Birch, SUPPORT SERVICES (1) Lorien, TELECOMMUNICATIONS SERVICES (2) Fibernet Group, Redstone, TRANSPORT (1) Autologic, AIM (24) ANT, Afren, Atlantic Global, Basepoint, CybIT, Cytomyx, Fayrewood, Freeplay Energy, GMA Resources, Gatekeeper Systems, Granby Oil & Gas, Huveaux, IDMos, M&C Saatchi, Maverick Entertainment, Multimedia Television, Osmetech, Platinum Mining Corp India, Plethora Solutions, Raven Mount, Sports Network Grp, Trans-Siberian Gold, Tristel, Western Selection.

Fig. 5.6 New UK 52 week highs and lows

Some technical analysts also use highs and lows as a means of checking the underlying health of the market. They like an index to be "confirmed" by an increase in new highs because that is an indication of a broad market rise. Similarly, if the number of new lows starts to diminish, that may be a sign that the index is close to bottoming.

The third list covers the "main movers": the stocks that had the biggest percentage rises and falls the previous day (see Figure 5.7):

MAIN MOVERS

FTSE 350	Closing price	Day's change	Day's chge %
RISES			
PHS Group	114¼	+8¾	+8.3
AMVESCAP	408	+13	+3.3
Matalan	182¾	+4	+2.2
Randgold Res	785	+15	+1.9
Vedanta Resources	524	+9¼	+1.8
IG Group	152	+2½	+1.7
FALLS			
Euromoney Inst	372	-23¼	-5.9
Luminar	541½	-30½	-5.3
Brown (N)	143	-7¾	-5.1
Shaftesbury	379	-19	-4.8
Findel	501	-23½	-4.5
Invensys	11¼	-½	-4.3

Fig. 5.7 Main movers

Winners and losers

Saturday's newspaper includes a table of the FTSE winners and losers (see Figure 5.8). This lists the top and bottom six performing companies over the previous week in three sectors (the FTSE 100, the FTSE 250 and the FTSE SmallCap sector), including their latest price, percentage price change on the week and change on the start of the year. It also lists the six top and bottom performing industry sectors.

Issuing new securities

The *Financial Times* provides detailed information on the secondary market for company securities. But the exchanges also have a vital role as a primary market, providing long-term capital for investment through the offering of new issues. These might be for companies entering their shares on the market for the first time (flotations) or for companies already listed but requiring further capital. In each case, the newspaper offers extensive coverage.

There are two daily published tables for new securities: equities (ordinary shares issued by newly floated companies); and rights offers (trading in the rights to issues of new shares in existing companies to which current shareholders are given the first right of refusal).

Launching companies

Companies can raise money by selling some of their shares to investors before getting them quoted on the stock market. Shares may be being sold by original owners/existing shareholders or by the company to raise new capital: so sometimes the money goes into the business, sometimes to the existing shareholders.

There are three ways of floating shares on the market:

- **Offers for sale or initial public offerings (IPOs):** these are shares offered to the public through advertising and the issue of prospectuses and application forms. The most notable form in the 1980s and 1990s were the privatisation issues, especially British Gas and British Telecom. These are the kinds of new issue likely to be of most interest to the small, private investor. Also popular in the late 1990s were the "dot-coms" coming to market.
- **Placings:** these are private sales of shares to a range of investors through a broker. The broker will typically go first to its clients, and subsequently shares may be available to a wider public through the stock market. This is a popular way for smaller companies to come to market, often through the AIM, and companies may combine a placing with an open offer for sale.

● Winners and Losers

Top 100	Fri price (p)	% change: 5 days	since 31/12/04
Winners			
ITV	**124¾**	6.6	18.5
Shell Transport	**553**	6.1	24.5
Compass Group	**239¼**	4.8	-2.8
Man Group	**1470**	4.5	-0.1
BT Group	**232¾**	4.4	14.7
BAE Systems	**288½**	4.3	25.2
Losers			
British Airways	**265¾**	-3.6	13.1
Hammerson	**899**	-2.2	3.5
Land Securities Group	**1398**	-1.9	-0.1
Capita Group	**367¼**	-1.7	0.4
Ryl Bank Of Scotland	**1696**	-1.2	-3.2
InterContinental Hotels	**707½**	-1.2	5.3

FTSE 250	Fri price (p)	% change: 4 days	since 31/12/04
Winners			
Spirent	**49½**	11.9	-32.9
Soco International	**608**	9.5	56.7
Colt Telecom Group	**61½**	9.3	30.9
Woolworths Group	**38¼**	8.5	-4.4
Easyjet	**258**	7.9	37.4
De Vere Group	**594**	7.8	3.8
Losers			
Computacenter	**202**	-16.5	-30.6
PZ Cussons	**1200**	-13.2	-9.3
Admiral Group	**362**	-5.4	12.2
Cambridge Antibody Tech	**639**	-4.9	-11.6
St.Ives	**360**	-4.5	-4.8
ARM Holdings	**113½**	-4.0	2.7

FTSE SmallCap	Fri price (p)	% change: 4 days	since 31/12/04
Winners			
Homestyle Group	**86½**	17.7	-32.9
Melrose Resources	**312**	12.4	11.2
Beattie (James)	**164**	12.3	27.6
Danka Business Systems	**21½**	11.7	-42.7
BTG	**174½**	8.4	113.5
Oxford Biomedica	**36½**	8.1	108.6
Losers			
Superscape Group	**24**	-23.8	-59.7
Phytopharm	**86½**	-10.4	-63.2
Morse	**70½**	-9.0	-26.6
Wolfson Microelectronics	**155**	-7.7	7.3
Stanelco	**21¼**	-7.6	295.3
French Connection Group	**245**	-7.4	-0.2

Industry Sectors	Fri price (p)	% change: 4 days	since 31/12/04
Winners			
Steel & Other Metals	**1017.05**	3.7	-16.3
Aerospace & Defence	**2303.56**	3.1	19.4
Mining	**8535.31**	3.1	13.0
Tobacco	**14925.9**	2.9	14.1
Oil & Gas	**7122.35**	2.9	20.6
Electricity	**4896.04**	2.9	23.4
Losers			
Forestry & Paper	**8046.46**	-3.5	-5.8
Software & Computer Servs	**499.90**	-1.8	2.9
Information Tech Hardware	**335.58**	-0.8	-14.9
Real Estate	**3483.97**	-0.8	1.4
Electronic & Elect Equip	**1612.20**	-0.2	-1.9
Insurance	**973.36**	0.2	8.8

Based on last week's performance. † Price at suspension.

Fig. 5.8 Winners and losers

- **Introductions:** these take place when there is already a number of shareholders, and the company is simply seeking permission for the shares to trade on the market. Such issues do not raise new capital, but might allow a company to move up from the AIM to the main market, or a foreign company to trade in London as well as in its home market.

Offers for sale are the most prominent form of new issue. They can come in two forms. In the first, the company offers the public a fixed number of shares at a fixed price. The price is set by the sponsors of the issue, usually an investment bank, based on forecasts of likely future profits. The sponsor will have two conflicting objectives in mind: a low enough price to ensure that the shares trade well in the secondary or aftermarket; and a high enough price for the client raising the money.

Since fixed price offers for sale often underprice the issue, they provide a good opportunity for stags. These are investors who buy in anticipation of an immediate price rise and a quick profit right away. Prices often rise well above the sale price when dealings start, and the potential premiums encourage speculators seeking to benefit from the mistakes made by the issuers.

The alternative, and the way to avoid excessive stagging, is the tender offer. In this case, no price is set in advance but, instead, the price is determined by what investors are prepared to pay. Investors are invited to bid for shares and, if the issue is fully subscribed, the price will generally be set at a little below one at which all available shares can be sold.

With either the fixed price or tender offer, the shares might be oversubscribed, and a decision needs to be made on the appropriate allocation of shares. This may be done by ballot, by scaling down certain over-large applications, or by giving preferential treatment to certain investors, usually small, private ones. Alternatively, an issue might be undersubscribed, and this is why new issues are underwritten by big investors who guarantee to buy any unwanted shares. If underwriting is needed, shares will overhang the market as underwriters wait to sell when the price is rising. A result of this is that the share price will tend to stay flat until the majority of the shares are in firm hands, the portfolios of investors who want to hold them.

The timetable for a new issue is usually fairly standard: an early announcement is made without information on the intended share price, prospective yield and price/earnings ratio. This is followed by the publication of the full prospectus, incorporating price and yield details and with a cut-off date for applications and a date on which decisions on the allotment will be made. The Stock Exchange then decides on a date on which official dealings begin.

Because of the size of the issues and the desire to appeal to first-time investors in the markets, the privatisation issues followed a rather longer schedule. In the case of BT3, the third British Telecom offer in 1993, for example, the government and SG Warburg, the global coordinator of the issue, were keen to ensure that such a significant launch should not have a deleterious effect on the whole market, and that downward pressure on the issue price should be resisted with "stabilising" buying by the underwriters.

The privatisation issues tended to be markedly underpriced, sometimes coming with incentives for the private investor, and positively discriminating against the institutions in

terms of allocation and even price. As a consequence, they have been among the most successful new issues of the past 25 years.

Like privatisations, new issues or IPOs of private sector companies are often viewed as a way to quick and easy profits, but for every ten or so successes, there is usually one that goes wrong or fails to perform. As a result, private investors must always show great caution, being careful to study the prospectus, balance sheet, and profit and loss account of any potential investment. As with investing in any company share, it is critical to ask such questions as: Where did the company's profits and growth come from in previous years? What markets does it operate in? Where is its customer base? What is the quality of the management?

Once possible purchases have been highlighted, it should then be asked whether the price is fair. Does it reflect the assets? Is there too much emphasis on potential growth? And are market expectations for this type of business unrealistically high? Paradoxically, a company that has recently reported very good results, or is in fashionable industries such as biotechnology or the internet with its best results at an indeterminate point in the future, may be best avoided.

New issue launches can be very risky investments, as in the following example:

> PartyGaming on Wednesday warned potential investors in its $8bn–$9.2bn (£4.4bn–£5bn) IPO that they faced losing "all or a very substantial part of their investment" if authorities in the US moved to stop the group offering its services in that market. The Gibraltar-based group operates the world's largest online poker room and generates 87 per cent of its revenues from players based in the US. However, the legality of online gaming in the US is unclear.
>
> Although PartyGaming outlined the risks of US action against online gaming in its prospectus, the group's directors have expressed confidence that its services are not in violation of existing laws. However, PartyGaming was forced to cut the price of its IPO because of investor concerns that the price range was too high. Dresdner Kleinwort Wasserstein, the group's broker, has indicated that the offer price will be between 111p and 127p. (*Financial Times*, 16 June 2005)

The *Financial Times* has a special table listing information on shares in newly floated companies (see Figure 5.9):

- **Issue date and price:** the date and price at which the security was issued.
- **Sector:** section of the London Stock Exchange that the security is listed on.
- **Stock code:** the abbreviated name of the security.
- **Stock:** the name of the security.
- **Price and change:** the closing price the previous night, and the change on the day.
- **High and low:** figures representing the price highs and lows for the year.
- **Volume:** the number of shares traded the previous day rounded to the nearest 1,000.
- **Market capitalisation:** the total value of the new issue in millions of pounds.

UK RECENT EQUITY ISSUES

Issue date	Issue price p	Sector	Stock code	Stock	Close price p	+/-	High	Low	Volume 000's	Mkt cap (£m)
7/7	--	AIM	BNK	Bankers Pet	53		53	53	-	172.5
7/7	--	AIM	BNKW	Do. Wts	35		35	35	-	5.55
7/7	§120	AIM	STR	Strategic Though	127½		127½	127½	-	31.9
6/7	§23	AIM	BYOT	Byotrol	28½	-½	29¼	28½	189	3.72
5/7	§51	GInd		Polyfuel	50½		50½	49	3	22.5
5/7	-	GInd		Do. Wts	4½		4½	4½	6	0.35
1/7	§-	AIM	ERU	Eruma	7¾	+¾	7¾	6¾	742	5.39
1/7	-	InCo	MYIA	Murray Intl Tst	300		300	300	-	0.19
1/7	-	InCo	CR.B	Core VCT1 B	3		3	3	-	0.22
30/6	*-	AIM	OVG	Ovoca Resources	8¾		9	8¾	234	9.68
30/6	§-	AIM	PNG	Persian Gold	24½	+¼	30	24¼	-	13.7
30/6	§-	AIM	PTH	Promethean	101½	-¼	101¾	101½	5	50.8
30/6	§-	AIM	BGO	Bango	170	-3	173½	170	84	44.5
30/6	--	AIM	ATVW	Antonov Wts	45	+10	45	20½	-	1.62
30/6	--	-	HENS	HSBC Sterling Abs	126¼		127	126	-	8.53
30/6	--	-	HENE	HSBC Euro Abs	124		124	124	-	10.5
30/6	--	-	ADC2	ADC 2010 ZDP	100½		100½	100½	-	6.64
30/6	--	-	ADCU	ADC 2010 Units	200½	-½	201	200½	-	-
30/6	§-	InCo	BPLE	Bear Stearns	61½	+¾	61½	1	-	20.3
30/6	§-	InCo	BPLZ	Bear Stearns ZDP	43		43½	43	-	14.3

§ Placing price. * Introduction. ‡ When Issued. ♣ Annual report/prospectus available, see London Shares page. For a full explanation of all other symbols please refer to the London Share Service notes.

Fig. 5.9 UK recent equity issues

New equity issues remain in the table for around six weeks after the company comes to market depending on the volume of new issues, and most then choose to be transferred to the London share service.

Raising extra funds

Rights issues are the way in which companies raise additional equity finance for expansion or refinance if they are overborrowed. They are issues of new shares in a company already on the market to which existing shareholders are given the right of first refusal. Shares are issued in proportion to existing holdings and at a discount to the current share price to give shareholders an incentive to take them up. The discount has the effect of depressing the price of existing shares and so shareholders will naturally want the rights to them. If they do not actually want to buy the shares, they can sell their rights.

The Stock Exchange sets a cut-off date after which the shares go ex-rights ("xr" in the share service tables). After this date the buyer does not get rights, and clearly, at this point, the share price has to adjust. Shares with the rights are known as cum-rights.

Nil paid rights (that is, rights for which the subscription price has not yet been paid) can be bought and sold. Their value is the ex-rights price less the subscription price for the new shares. These too are highly geared investments. The newspaper lists them in a table of rights offers, as in Figure 5.10:

UK RIGHTS OFFERS

Issue price p	Amount paid up	Latest Renun. date	High	Low	Stock	Closing price p	+or-
200p	Nil	18/07	43pm	39¼pm	Laing (J)	39¼pm	-3¾
35	Nil	26/7	19½pm	17pm	Avis Europe	17pm	-1½
265p	Nil	21/07	123pm	109pm	T&F Informa	109pm	-3
25p	Nil	21/07	10pm	9pm	Caldwell Inv	9pm	

pm premium

Fig. 5.10 UK rights offers

- **Issue price and amount paid up:** as for the new issues, these are the price at which new shares are issued and the proportion of price already paid, if any.
- **Latest renunciation date:** the final date by which holders of rights can dispose of their allotments to purchasers who will not have to pay stamp duty. Before this date, all dealings are for cash rather than the account.
- **Closing price (as a premium), change and high and low:** the price quoted for rights to buy new shares, plus the change on the previous day and the highest and lowest points for the year. The price is actually a premium for the right to subscribe. Percentage swings in price can be large because of gearing.

Rights offers normally remain in the table until they are fully paid. The price of rights offers is pitched well below the market price to ensure maximum take-up of the issue although, as with new issues, the shares will be underwritten, usually by an investment bank. A standard issue might aim to raise up to 30 per cent more equity capital with shares at about a 20 per cent discount to market price. Rarely, a company might do a deep discount rights issue that does not need to be underwritten.

The price at which the shares are pitched does not matter since the company already belongs to the shareholders. The only benefit they get is on the yield if the dividend per share remains the same amount. Because the equity is diluted, the price drops: naturally, if the dividend is static, the yield goes up.

The following story is an example of a rights offer following shortly after the company has come to market:

> Google followers quickly solved the maths clue hidden in its secondary offering of shares on Thursday. Now they have to figure out the bigger mystery of what it will do with the $4bn it plans to raise. The idiosyncratic internet company, which loves to set challenging and quirky intelligence tests to job aspirants, announced almost a year to the day after its initial public offering that it would be issuing an additional 14,159,265 shares. Add a leading 3 and the numbers are the same as 3.14159265, or Pi – the ratio of the circumference to the diameter of a circle. (*Financial Times*, 19 August 2005)

Other techniques by which new issues in existing companies can be arranged include vendor placings, placings and bought deals and convertible loan stock sold through the Euromarkets.

There is also the scrip issue or capitalisation issue where a company turns part of its accumulated reserves into new shares. This is essentially an accounting transaction to convert the part of shareholders' funds that is not revealed by stock market capitalisation into stock. It keeps the number of shares in issue in line with the growth of the business, and keeps their prices down. It can also be a tax-efficient way of handing part of the company's added worth back to shareholders.

The Stock Exchange sets a date when shares go "xc" (ex-capitalisation), after which the price will go down. The only real effect is if the dividend remains the same, in which case the yield has gone up. It also makes it difficult to compare share prices over time unless calculations have made the appropriate adjustment. The term "xa" means a share is ex-all, not entitled to scrip issues, rights issues or dividends.

Directors' dealings

Saturday's newspaper lists details of the previous week's share transactions by directors in their own companies (see Figure 5.11) showing:

- **Directors' dealings:** sales or purchases listed by company, sector, number of shares bought or sold, their value in thousands of pounds, and the number of directors involved in the trading activity. The list contains all transactions with a value over £10,000, including the exercise of options if 100 per cent of the stock on which the options were granted is subsequently sold.

The information on directors' share transactions might give an indication of how company "insiders" feel about the prospects for their company's share price both in terms of its relationship to the company's prospective performance and relative to broader market movements. For example, directors frequently buy against the trend of a market fall, perhaps feeling secure in the longer-term prospects for their company's share price. By the same token, sales of stock on which directors have been granted an option as part of their remuneration package might indicate a lack of confidence in market prospects for the stock, at least for the immediate future; of course, it might also indicate that the director simply needs to free up some cash.

The attraction to an investor of following directors' transactions is obvious, but scholarly research in both the United Kingdom and the United States reveals mixed results. On average, it appears that directors are good at deciding when to sell, but not significantly above average at knowing when to buy. The latter result may be because they have too insular a view about their companies' prospects, believing their own propaganda and not taking sufficient account of their competition or the overall economic situation.

DIRECTORS' DEALINGS Transactions in own companies

BUY	Sector	Dealing date	Shares	Value (£)	No of directors	Holding*
3i Group	Investments	Jun 28 05	5,000	33,812	1	5,000
Acal	Support Services	Jun 24 05	10,000	33,550	1	10,000
Advanced Fluid Connections	Engineering	Jun 22 05	350,000	38,075	2	4,757,017
Atkins (W S)	Support Services	Jun 28 05	5,000	33,500	1	31,627
Baronsmead VCT	Investments	Jun 6 05	26,177	25,872	3	320,903
BP	Oil & Gas	Apr 5 05	15,000	88,575	1	15,000
BT Group	Telecoms	Jun 27 05	7,000	15,487	1	30,920
Carillion	Construction	Jun 24 05	8,544	22,315	1	475,644
Dream Direct Group	Software	Jun 24 05	87,791	76,814	5	1,646,247
Hammerson	Real Estate	Jun 29 05	2,000	17,920	1	4,000
IndigoVision Group	Software	Jun 21 05	115,000	115,000	2	378,533
International Power	Electricity	Jun 27 05	15,000	30,346	1	15,000
Latham (James)	Construction	Jun 28 05	20,000	34,200	2	488,709
mmO2	Telecomms	Jun 27 05	50,000	64,000	1	125,831
National Australia Bank Ltd	Banks	Jun 17 05	1,600	20,873	1	4,066
Newcastle United	Leisure	Jun 27 05	100,000	46,000	2	68,110,636
OMG	Software	Jun 23 05	357,142	49,999	1	357,142
Patientline	Telecoms	Jun 27 05	20,000	15,000	1	70,000
PGI Group	Food Producers	Jun 27 05	110,000	48,948	1	110,000
Pursuit Dynamics	Engineering	Jun 28 05	10,000	20,200	1	40,000
Ransom (William) & Son	Pharmaceutical	Jun 29 05	225,000	90,000	3	1,134,095
Rexam	Support Services	Jun 27 05	4,000	18,960	1	6,500
Salvesen (Christian)	Transport	Jun 23 05	100,000	65,750	1	420,000
Springboard	Other Financial	Jun 29 05	70,000	70,000	4	1,293,625
Teesland	Other Financial	Jun 24 05	800,000	520,000	2	3,003,465

SALE POST-EXERCISE	Sector	Dealing date	Shares	Value (£)	No of directors	Holding*
Ark Therapeutics Group	Pharmaceutical	Jun 22 05	500,000	545,000	1	2,886,667
Capital & Regional	Real Estate	Jun 24 05	136,966	1,118,792	5	2,949,360
Halma	Engineering	Jun 28 05	13,517	19,701	1	748,536
Havelock Europa	Construction	Jun 28 05	100,000	132,000	1	181,551
Inchcape	Automobiles	Jun 23 05	18,000	368,280	1	45,835
Investec	Other Financial	Jun 24 05	36,856	652,063	6	0
iSOFT Group	Software	Jun 23 05	902,277	3,909,566	1	748,270
Majestic Wine	Food Retail	Jun 27 05	20,653	54,729	3	480,499
Melrose Resources	Oil & Gas	Jun 29 05	130,227	397,190	3	958,350
Western Canadian Coal Corp	Mining	Jun 23 05	10,000	18,763	1	215,000
Whitbread	Leisure	Jun 27 05	8,503	79,040	1	59,925
SELL						
Alexon Group	Retailers	Jun 24 05	110,000	308,500	2	795,046
Anglo Irish Bank Corp	Banks	Jun 28 05	27,260	185,662	1	380,000
Dignity	Support Services	Jun 23 05	213,018	762,604	1	250,000
Dipford Group	Other Financial	Jun 28 05	250,000	134,999	2	1,606,104
E2V Technologies	Electricals	Jun 28 05	1,032,250	2,064,500	3	2,102,335
Foreign & Colonial Investment Trust	Investments	Jun 17 05	16,615	34,393	1	64,177
Future	Media	Jun 24 05	257,055	200,502	1	3,799,925
Investec	Other Financial	Jun 23 05	85,000	1,506,008	2	802,583
iSOFT Group	Software	Jun 27 05	5,500,000	23,375,000	2	8,500,000
Land Securities Group	Real Estate	Jun 24 05	6,598	93,823	1	27,518
London & Associated Properties	Real Estate	Jun 27 05	228,977	238,136	3	1,586,144
OMG	Software	Jun 23 05	357,142	49,999	1	14,009,320
Primary Health Properties	Real Estate	Jun 19 05	16,556	49,668	1	0

Fig. 5.11 Directors' dealings

“We live in the Age of Performance. Performance means, quite simply, that your portfolio does better than others.”

George J W Goodman

(“Adam Smith”)

“The past history of the series (of stock price changes) cannot be used to predict the future in any meaningful way. The future path of the price level of a security is no more predictable than the path of a series of cumulated random numbers.”

Eugene Fama

6

Indices and aggregates

Market indicators

- **FT indices** – the original investment statistics: the FT Ordinary Share index (FT 30); stock market trading data; the FTSE Gold Mines index
- **FTSE Actuaries Share Indices** – reading the figures and using the information on the key market indicators: market at a glance; leaders and laggards; capped indices; monthly averages of stock indices and private investors' indices

The fundamental data of the equities markets are the prices of shares and the various ratios that can be calculated from them. But while this information is highly valuable for understanding both the performance of individual companies and investors' evaluation of their prospects, it does not indicate the state of the market as a whole or a given company's relative performance. This question of share price measurement for the stock market as a whole led to the development of figures for baskets of shares, or indices. An index is purely a number used to compare the value of companies now with their value at a starting date.

All indices are an attempt to create order and direction out of diversity. Stock market indices are designed to pull together the disparate movements of different share prices, each responding to myriad individual pressures, to find out whether the market, or a subsection of it, is moving up or down, in a bullish or bearish direction. There are numerous ways of composing equity indices, each with advantages and disadvantages, and the one selected will depend on just what it is that is being tracked. Indices are important benchmarks for measuring the performance of the fund managers who put money into the stock market on behalf of investors. Most will try to outperform the various benchmarks, though some will passively aim merely to "track" the rise and fall of the indices. In its simplest form, this could be attempted by buying the stocks that constitute the index.

For managers too, such benchmark information is highly valuable for understanding both the performance of their individual companies and investors' evaluation of their prospects. For example, it is important to ensure that the company's share price is not underperforming the overall market, perhaps making the management vulnerable to a hostile bid. Indeed, increasing numbers of companies are making the share price a key management target through programmes of corporate value creation and value-based management.

FT indices

Perhaps the greatest *Financial Times* contribution to investment statistics has been its pioneering of stock market indices. The oldest and most familiar of these is the FT Ordinary Share index, also known as the FT 30 share index, or simply the FT index (published in Monday's newspaper). It is the longest-standing continuous index covering UK equities: started in 1935 with a base of 100, it is compiled from the share prices of 30 leading UK companies, chosen to be representative of UK industry and is calculated as a geometric mean. It is biased towards major industrial and retailing companies, the traditional blue chips, but now includes financial and telecoms stocks, which have become more important (see Figure 6.1):

- **FT 30:** the movements of the FT index over the past five trading days, together with its level a year ago, and the values and dates of its highs and lows for this year. The basis of 100 dates from the index's inception on 1 July 1935.

FT 30 INDEX www.ft.com/ft30

	Aug 12	Aug 11	Aug 10	Aug 9	Aug 8	Yr ago	*High	*Low
FT 30	2170.3	2170.5	2184.2	2172.0	2170.0	N/A	**2184.2**	1959.3
Ord. div. yield	3.42	3.42	3.40	3.41	3.41	N/A	**3.93**	3.18
P/E ratio	14.73	14.75	14.83	14.78	14.78	N/A	**19.44**	14.68

FT 30 since compilation: high 4198.4 19/07/1999 ; low 49.4 26/06/1940 . Base Date: 1/7/35. *For 2005. † Corrected figures.

FT 30 hourly changes

8	9	10	11	12	13	14	15	16	High	Low
2170.5	2172.3	2172.6	2170.2	2172.7	2172.7	2169.3	2171.1	2173.9	2179.2	2169.0

FT30 constituents and recent additions/deletions can be found at www.ft.com/ft30. Change effective 26/7/05: Allied Domecq replaced by Hilton Group.

Fig. 6.1 FT 30 index

- **Ordinary dividend yield** and **price/earnings ratio:** in the same way that the index reflects prices of the component shares, so these reflect the dividends and earnings of the relevant companies.
- **FT 30 hourly changes:** the hourly movements of the FT index through the previous trading day plus the day's high and low point of the index. Originally calculated daily, it is now available as a real-time index like the Footsie (see below).

The FT 30 was for decades the standard barometer of investor sentiment in the City, quoted in the press and on radio and television as regularly as the FTSE 100 index is today. Although in terms of public attention the FT 30 has now been superseded by the Footsie, it still has a role to play. As the oldest surviving stock market index, it represents an important part of financial history and may be used by analysts to compare the impact of great events, such as the outbreak of wars or surprise election results, on the market. Its list of constituents is also used by followers of the O'Higgins method of share selection, which involves finding the ten stocks in the index with the highest dividend yield and selecting the five of those with the lowest price.

The mathematical structure of the index and the fact that all shares count equally regardless of their market capitalisation (the index is unweighted) make it a sensitive short-term indicator of the mood of the market. But it has a downward bias over the long term, and so is not suitable for measuring market levels or the performance of an investment portfolio over time.

In contrast to the Footsie where the components are selected purely on size, judgement has always been important in choosing companies for the FT 30. The aim has been to include a representative cross-section of UK industry. Companies have been removed from the index because they have been taken over, their fortunes have declined, or to make room for more dynamic or market-sensitive shares. For example, British Telecom and British Gas were brought into the index immediately on privatisation. It is a measure of the dynamics of the stock market that only four of the original components remain in the index today (see Appendix 2).

Stock market trading data

Another table provides information on trading volume across the stock market (see Figure 6.2):

UK STOCK MARKET TRADING DATA

	Aug 18	Aug 17	Aug 16	Aug 15	Aug 12	Yr ago
SEAQ bargains	220,536	214,357	215,775	172,818	200,472	175,407
Equity turnover (£m)†	-	5021.5	4917.8	3772.1	4769.5	3833.5
Equity bargains†	-	108,980	108,179	90,027	100,774	84,966
Shares traded (m)†	-	1663.9	1754.2	1519.2	1620.2	1559.6
Total market bargains‡	-	230,293	232,401	186,329	215,899	183,706
Total turnover (£m)‡	-	8684.0	8293.5	7227.1	8181.1	6982.8
Total shrs traded (m) ‡	*1983.4	2752.9	2791.9	2570.0	2634.4	2467.9

† Excluding intra-market and overseas turnover but including Crest turnover. *UK only total at 6pm. ‡ UK plus intra-market turnover. Source LSE.

Fig. 6.2 UK stock market trading data

- **SEAQ bargains:** the number of transactions of equities and gilts on the Stock Exchange's SEAQ trading system by 4.30pm on the five most recent trading days, as well as a year earlier. As with trading volume on individual shares, all volume figures should be divided by two since each share is recorded twice as being both bought and sold.
- **Equity turnover** and **equity bargains:** the value of the volume of equities traded in millions of pounds; and the number of transactions.
- **Shares traded:** the actual number of shares to have changed hands. This figure and the equity turnover figure exclude intra-market and overseas turnover.
- **Total market bargains, total turnover** and **total shares traded:** figures for transactions, value and number of shares traded that include intra-market turnover.

FTSE Gold Mines index

A subsidiary FT equity index tracks the performance of 18 international gold mining companies in Asia Pacific, EMEA (Europe, Middle East and Africa) and the Americas (see Figure 6.3). The base value for the Gold Mines index is 1,000 set on the last day of 1992, and the currency basis for the value calculations is US dollars.

- **Gold mines:** the value of the index at the end of the last day's trading in London as well as at the end of the previous year and the high and low points of the previous 52 weeks. In addition, this index shows total market capitalisation, the current gross dividend yield and the total return, reflecting both price and dividend performance.
- **Regional indices:** similar values and yields for the three regional components of the overall Gold Mines index.

FTSE GOLD MINES INDEX www.ft.com/commoditiesdata

$	Aug 12	% chg since 31/12/04	Mkt Cap $bn	% of Gold Mines	Gross div yld %	Total return	52 week High	52 week Low
Gold Mines Index (18)	**1701.09**	**+0.16**	**74.20**	**100.00**	**0.86**	**1891.71**	**1892.64**	**1342.99**
■ **Regional Indices**								
Asia Pacific (4)	4705.45	+4.38	6.35	8.56	0.64	5299.86	4797.86	3317.28
EMEA (4)	1928.66	-3.34	14.19	19.13	1.20	2398.64	2446.58	1568.02
Americas (10)	1448.27	+0.72	53.66	72.31	0.80	1533.09	1585.28	1139.93

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Fig. 6.3 FTSE Gold Mines index

There are three categories of gold mining companies: the "majors" with production of one million ounces of gold per year (around 18 companies); the "independents" with production of over 100,000 ounces a year (around 50 companies); and the "juniors", companies with little or no production but determination to discover some. The two dominant companies, representing more than 40 per cent of the index between them, are Barrick Gold and Anglo Gold. But while the universe of mining stocks worldwide is quite extensive, the total capitalisation of the FTSE Gold Mines index (which includes only companies with production of over 300,000 ounces a year) is small relative to the market capitalisation of leading FTSE 100 companies. Broad criteria for valuing mining companies include the quality, quantity and overall status of a company's production, reserves, management and exploration programme, as well as the political risk of the country in which it is based.

FTSE Actuaries Share Indices

More widely based indices have been developed by the *Financial Times*, the Stock Exchange and the Institute and Faculty of Actuaries. As of November 1995, these have been managed by a joint company, FTSE International. These indices are arithmetically weighted by market capitalisation rather than being based on crude price movements. In other words, the larger a company, the bigger the effect its price movements will have on the index.

The FTSE Actuaries Share Indices (see Figure 6.4), and notably the All-Share index, are the professional investor's yardstick for the whole UK equity market, for use in analysing investment strategies and as a measure of portfolio performance. There are 34 component indices in the All-Share index relating to different industrial sectors of the market, and nine component indices relating to different levels of capitalisation (including the well-known Footsie). Beyond the All-Share are the fledgling indices, incorporating companies with a market capitalisation below around £35 million.

FTSE Actuaries Share Indices — UK series

Produced in conjunction with the Faculty and Institute of Actuaries

	£ Stlg Jul 7	Day's chge%	Euro Index	£ Stlg Jul 6	£ Stlg Jul 5	Year ago	Actual yield%	Cover	P/E ratio	Xd adj. ytd	Total Return
FTSE 100	5158.3	-1.4	5861.3	5229.6	5190.1	4381.1	3.20	2.11	14.83	100.91	2763.49
FTSE 250	7387.9	-1.5	8394.8	7496.9	7407.4	6088.2	2.59	2.10	18.40	107.76	3864.71
FTSE 250 ex Inv Co	7669.6	-1.4	8714.9	7779.1	7682.3	6346.0	2.67	2.19	17.06	114.82	4055.65
FTSE 350	2627.1	-1.4	2985.1	2663.8	2642.0	2221.7	3.11	2.11	15.24	49.52	2874.54
FTSE 350 ex Inv Co	2623.6	-1.4	2981.2	2660.0	2638.4	2220.8	3.13	2.12	15.06	49.80	1474.22
FTSE 350 Higher Yield	3365.9	-1.3	3824.6	3411.9	3389.0	2765.7	3.77	1.82	14.62	74.75	3356.48
FTSE 350 Lower Yield	1883.9	-1.4	2140.7	1910.9	1892.1	1646.6	2.37	2.64	16.02	28.01	1566.59
FTSE SmallCap	2916.92	-1.3	3314.49	2953.99	2937.48	2533.69	2.08	1.40	34.29	33.64	3045.50
FTSE SmallCap ex Inv Co	2867.61	-1.2	3258.45	2901.77	2887.86	2550.24	2.23	1.51	29.75	34.47	3055.15
FTSE All-Share	2579.74	-1.4	2931.35	2615.66	2594.53	2183.69	3.08	2.09	15.53	47.99	2863.06
FTSE All-Share ex Inv Co	2574.79	-1.4	2925.73	2610.41	2589.42	2182.27	3.11	2.11	15.25	48.41	1472.58
FTSE All-Share ex Multinational	909.96	-1.6	856.98	924.56	918.23	783.60	3.29	1.98	15.32	17.97	1090.13
FTSE Fledgling	3310.89	-1.4	3762.16	3357.17	3347.27	2806.13	2.20	‡	‡	39.70	4502.95
FTSE Fledgling ex Inv Co	4242.54	-1.4	4820.78	4301.48	4296.26	3720.36	2.08	‡	‡	45.51	5699.72
FTSE All-Small	1940.51	-1.3	2205.00	1965.52	1955.28	1677.86	2.10	0.90	53.32	22.53	2597.94
FTSE All-Small ex Inv Co	2026.46	-1.2	2302.66	2051.08	2042.11	1796.57	2.21	0.88	51.20	24.04	2743.68
FTSE AIM All-Share	992.76	-1.6	1128.07	1009.26	1004.18	883.63	0.51	0.50	80.00†	3.27	956.66
FTSE Actuaries Industry Sectors											
RESOURCES(30)	7048.03	-1.4	8008.65	7150.78	7064.37	5332.94	2.50	2.63	15.25	112.32	3972.23
Mining(11)	8659.50	-1.3	9839.76	8776.30	8633.65	6515.26	2.36	3.52	12.01	123.51	3415.32
Oil & Gas(19)	7347.07	-1.5	8348.46	7456.68	7376.26	5567.15	2.54	2.36	16.64	120.77	4257.32
BASIC INDUSTRIES(47)	3184.03	-1.7	3618.01	3240.34	3188.08	2504.14	2.87	3.43	10.16	56.05	2408.10
Chemicals(9)	2329.33	-1.3	2646.81	2359.30	2330.26	1996.19	3.27	2.09	14.67	62.44	1564.89
Construction & Bld Matls(36)	3564.83	-1.9	4050.71	3634.39	3570.39	2689.69	2.85	3.60	9.76	55.69	2511.44
Forestry & Paper(1)	8169.83	+1.4	9283.35	8060.17	8060.17	8389.15	5.64	1.81	9.82	142.56	5315.32
Steel & Other Metals(1)	1035.10	-2.3	1176.18	1059.18	1041.12	926.78	0.00	-	4.68	0.00	730.95
GENERAL INDUSTRIALS(46)	1857.55	-1.7	2110.73	1889.44	1855.56	1530.68	2.96	1.70	19.85	26.44	1399.76
Aerospace & Defence(9)	2294.10	-1.7	2606.78	2333.79	2294.50	1765.65	2.94	1.81	18.74	28.97	1865.21
Electronic & Elect Equip(16)	1636.56	-1.3	1859.62	1657.43	1622.55	1652.31	2.35	0.61	69.71	21.55	1111.90
Engineering & Machinery(21)	2368.04	-1.8	2690.80	2411.87	2365.33	2081.76	3.23	1.77	17.56	43.69	2056.70
CYCLICAL CONSUMER GOODS(16)	6148.15	-1.5	6986.12	6243.87	6215.44	5950.96	3.54	2.29	12.33	134.36	3078.80
Automobiles & Parts(8)	4221.16	-1.6	4796.50	4290.17	4261.38	3793.35	3.60	2.25	12.33	95.95	2932.63
Household Goods & Texts(8)	3157.07	-1.2	3587.37	3196.41	3209.45	3959.14	3.26	2.48	12.35	57.86	1883.34
NON-CYCLICAL CONS GOODS(54)	5979.49	-1.2	6794.47	6050.15	6004.72	5178.33	2.88	1.91	18.18	105.58	2861.61
Beverages(5)	4981.62	-2.7	5660.60	5121.58	5054.83	4180.44	3.16	1.83	17.33	88.40	2508.61
Food Producers & Processors(14)	3771.48	-1.2	4285.52	3818.98	3812.27	3345.05	3.09	2.24	14.44	75.33	2260.51
Health(13)	3657.88	-0.7	4156.44	3684.55	3688.98	3810.74	1.06	2.90	32.54	23.22	2634.39
Personal Care & Hse Prods(4)	4549.87	-1.3	5170.01	4612.11	4633.40	4431.95	2.16	2.42	19.09	49.74	2342.84
Pharma'ls & Biotech(15)	8277.68	-0.5	9405.90	8318.41	8237.28	7199.29	2.67	1.83	20.47	125.71	3465.73
Tobacco(3)	14660.10	-1.5	16658.23	14881.49	14821.45	11592.88	3.73	1.75	15.34	430.05	5883.32
CYCLICAL SERVICES(205)	3036.63	-1.9	3450.51	3094.98	3079.43	2856.05	2.79	2.13	16.80	52.13	2003.65
General Retailers(43)	2033.96	-1.9	2311.19	2072.89	2075.77	2129.91	3.73	2.07	12.94	51.29	1570.71
Leisure & Hotels(29)	4380.74	-2.3	4977.82	4486.14	4442.22	3679.76	2.34	2.63	16.21	58.23	3029.63
Media & Entertainment(37)	3823.06	-1.7	4344.13	3889.26	3883.27	3649.67	2.29	2.08	20.98	49.07	1642.82
Support Services(67)	3327.47	-1.2	3780.99	3368.87	3328.09	3138.23	2.78	1.92	18.73	58.56	2567.94
Transport(29)	2510.66	-2.7	2852.85	2579.32	2562.41	2190.84	2.92	2.13	16.05	44.23	1410.96
NON-CYCLICAL SERVICES(19)	2099.80	-1.1	2385.99	2124.21	2114.38	1808.29	2.92	2.25	15.23	27.47	1307.49
Food & Drug Retailers(7)	3527.73	-1.9	4008.55	3595.56	3599.51	3113.48	2.39	1.59	26.38	59.55	2912.98
Telecommunication Services(12)	2858.33	-0.9	3247.91	2885.56	2867.66	2444.58	3.07	2.39	13.64	34.41	1550.86
UTILITIES(15)	4614.34	-1.0	5243.26	4660.24	4672.66	3649.13	4.25	1.42	16.55	105.11	2976.26
Electricity(5)	4852.13	-0.8	5513.46	4891.44	4880.96	3439.46	3.57	1.45	19.30	81.43	3903.47
Utilities Other(10)	4376.73	-1.1	4973.26	4425.11	4449.64	3666.97	4.66	1.41	15.25	116.38	2820.90
INFORMATION TECHNOLOGY(42)	389.44	-0.9	442.52	392.88	391.08	386.74	1.18	2.71	31.20	3.11	416.98
Information Tech Hardware(13)	334.17	-0.6	379.72	336.26	334.71	430.20	0.40	1.96	80.00†	0.77	350.27
Software & Computer Services(29)	499.30	-1.0	567.35	504.21	501.92	440.18	1.49	2.79	24.01	5.10	537.74
NON FINANCIALS(474)	2530.35	-1.4	2875.23	2566.41	2546.13	2134.08	2.84	2.19	16.08	41.78	2482.50
FINANCIALS(219)	5719.27	-1.3	6498.79	5794.10	5744.70	4886.65	3.70	1.89	14.29	137.50	3390.74
Banks(10)	9397.35	-1.2	10678.18	9508.83	9466.41	8157.17	4.15	1.95	12.33	258.25	4305.20
Insurance(19)	974.29	-1.7	1107.08	991.32	978.40	904.50	4.14	1.30	18.60	24.77	1043.94
Life Assurance(8)	4612.83	-1.7	5241.55	4694.89	4648.34	3898.47	3.90	1.90	13.53	118.63	2718.58
Investment Companies(120)	4256.38	-1.7	4836.51	4330.15	4289.04	3430.30	1.84	1.06	51.42	47.74	1783.24
Real Estate(32)	3464.27	-2.1	3936.44	3536.92	3479.21	2778.84	2.36	1.69	25.11	48.89	2754.94
Speciality & Other Finance(30)	4269.09	.....	4850.95	4271.12	4103.47	3604.18	2.69	2.24	16.62	62.63	3112.47

■ Hourly movements	8.03	9.00	10.00	11.00	12.00	13.00	14.00	15.00	16.00	High/day	Low/day
FTSE 100	5217.4	5212.4	5153.8	5093.4	5059.8	5119.6	5112.7	5138.7	5141.1	5219.3	5022.1
FTSE 250	7501.3	7489.1	7449.9	7232.6	7239.6	7305.9	7332.1	7373.3	7391.1	7501.3	7224.6
FTSE SmallCap	2954.01	2955.43	2952.09	2904.29	2892.07	2897.07	2903.68	2908.62	2913.49	2955.75	2891.88
FTSE All-Share	2610.77	2608.14	2581.84	2545.10	2531.07	2559.21	2557.76	2570.65	2572.64	2611.14	2515.55

Time of FTSE 100 Day's high: 08:14:45 Day's low: 11:39:15. FTSE 100 2004/05 High: 5229.6 (06/07/2005) Low: 4783.6 (12/01/2005)
Time of FTSE All-Share Day's high: 08:15:00 Day's low: 11:39:00. FTSE All-Share 2005 High: 2615.66 (06/07/2005) Low: 2393.30 (28/04/2005)

Further information is available on http://www.ftse.com. © FTSE International Limited 2005. All Rights reserved. 'FTSE', 'FT-SE' and 'Footsie' are trade marks of the London Stock Exchange and The Financial Times and are used by FTSE International under license. † Sector P/E ratios greater than 80 are not shown. For changes to FTSE Fledgling Index constituents please refer to www.ftse.com/indexchanges. ‡ Values are negative. Deletion: United Utilities A (FTSE 100).

Fig. 6.4 FTSE Actuaries Share Indices

Reading the figures

- **FTSE 100:** the Footsie index was started with a base of 1,000 in January 1984 to fill a gap in the market. At that time, the FT 30 index was calculated only hourly, and there was demand for a constantly updated – or real-time – index in view of both the competition from overseas and the needs of the new traded options and financial futures markets. For most purposes, the Footsie has replaced the FT 30. The index, amended quarterly, includes the 100 largest UK companies in terms of market capitalisation – the blue chips – and represents around 82 per cent of total UK market capitalisation.
- **FTSE 250:** an index of the next 250 companies by market capitalisation, those directly beneath the FTSE 100. These are companies capitalised at between £350 million and £3 billion, in total around 14 per cent of overall market capitalisation. It is calculated two ways, one that includes and one that excludes investment companies.
- **FTSE 350:** the combination of the FTSE 100 and the FTSE 250, again calculated both including and excluding investment companies.
- **FTSE 350 Higher** and **Lower Yield:** these two indices, introduced at the beginning of 1995, are calculated by a quarterly descending ranking of the 350 companies by the size of their annual dividend yield, and then their division into two equal halves as measured by total capitalisation of the 350 companies.
- **FTSE SmallCap:** the 450-plus companies capitalised at up to £350 million, which when added to the 350 make up the All-Share index. Like the 250 and 350, this index is calculated two ways.
- **FTSE All-Share:** 800-plus companies, representing 98–99 per cent of total UK market capitalisation. Introduced on a daily basis in 1962, it is far more representative than the FT index. Its mathematical structure makes it a reliable yardstick against which to measure portfolio performance, and hence it represents an essential tool for professional investment managers.
- **FTSE Fledgling:** another index launched at the beginning of 1995, this was introduced to indicate the Stock Exchange's concern for smaller companies. It includes the over 700 companies that fail to qualify for the All-Share index (including shares quoted on the AIM), representing 1–2 per cent of total market capitalisation. It is calculated two ways, one that includes and one that excludes investment companies.
- **FTSE All-Small** and **FTSE AIM All-Share:** the former combines the SmallCap and Fledgling indices; the latter is an index of all AIM-listed companies.
- **Industry sectors:** aggregate performance measures for key industrial sectors, providing investors with a valuable yardstick for assessing the performance of a stock relative to its sector. The group comprises ten sectors, each of which is further broken down into various sub-sectors. The sub-sectors are broken down into their constituent companies in the London share service.
- **Non-financials:** formerly known as the FT "500", this includes all companies except financial and property companies and investment companies.

- **Financials:** financial and property companies broken down into six sub-sectors including investment companies (see Chapter 10).
- **All indices:** the UK series lists yesterday's closing value for each index as well as the percentage change on the previous day, the index's value in euros, the two previous days' closing values and the value of the index one year ago. The further performance indicators of actual yield, cover and price/earnings ratio for each index are also provided. Sector values for these ratios can be used as benchmarks for the performance of individual stocks within a sector. No p/e ratios greater than 80 are allowed, since such ratios tend to result from the distortions of loss-making companies, notably in the technology, media and telecommunications (TMT) sectors.
- **Ex-dividend adjustment year to date:** when a share goes ex-dividend, all else being equal, its price will drop by the amount of the dividend per share. This is the ex-dividend adjustment. The figure in the indices is the cumulative total of the aggregate of the gross ex-dividend adjustments multiplied by the relevant number of shares in issue. It allows the investor to assess the flow of income on a portfolio over the year.
- **Total return:** calculated at the close of each trading day, total return figures reflect both the price and dividend performance of stocks. The index starts the year at 1,000 and incorporates share price appreciation for the year plus ex-dividend adjustment year to date, assuming that dividends are reinvested.
- **Hourly movements:** the values of the indices at hourly intervals throughout the previous day's trading, plus their highs and lows for the day. These are what are known as intra-day values.

Using the information

The Footsie is calculated every 15 seconds from the price movements of the 100 largest UK companies by market capitalisation. Since it incorporates fewer companies than the All-Share index, it can be calculated more rapidly and frequently. The Footsie was the first real-time index in the UK and was introduced mainly as a basis for dealing in equity index options and futures (see Chapter 14). It rapidly became a key indicator of the stock market's mood, not least because it is quoted widely throughout the day. In many respects, the market thinks in terms of the Footsie figures with particular points being seen as psychological watersheds.

The blue chip FTSE 100 constituents (listed in Appendix 2) are mostly multinationals and companies with strong overseas interests, while the FTSE 250 are mainly strongly UK-orientated companies. As a result, the former are likely to be more influenced by overseas factors such as exchange rate movements, while the latter may be influenced more by domestic factors such as interest rate movements. Membership of both indices is reviewed every quarter as market caps rise and fall. For the FTSE 100, any share that is 90th or higher automatically joins the index; 111th or lower means automatic relegation.

The FTSE All-Share accurately reflects the whole market. With over 800 constituents, it has a very broad coverage, encompassing 98–99 per cent of the market's aggregate capitalisation, with each company weighted according to its market value so that a move in the price of a large company has more effect than that of a small one. It can be used as a measure of the market's performance over long periods. It serves as a reliable yardstick against which to assess portfolio performance. As a weighted arithmetic index it is designed to behave as an actual portfolio would behave.

The breakdown into industry groups allows investors to track the performance of particular sectors. This is of great assistance to specialist sector analysts, as well as allowing more general investors to improve their understanding of the structure of the market as a whole. Industrial classification is highly important since it is normally accepted by the stock market and institutional research departments as the basis for the analysis of companies. Correctly classifying all companies traded on the London market is the responsibility of the FTSE Actuaries Industry Classification Committee, made up of market practitioners, investment managers and actuaries.

Over time, as the structure of UK industry has shifted, it has been necessary to amalgamate sectors and create new ones. For example, Radio and TV, Teas and Diamonds have gone, while Health, Media and Entertainment, and Electricity have been formed. When a group is created, its initial value is set at the level of its immediate predecessor. In 1999, FTSE International introduced the Global Classification System, allowing comparison across national boundaries as well as across sectors and sub-sectors. There are three levels of classification: economic group, for example, resources; industry sector, for example, oil and gas; and industry sub-sector, for example, oil services or oil integrated.

Institutional investors attempt to beat the index most relevant to their portfolio. Increasingly, investors want a set of indices that covers the entire equity capital structure of the UK market so that they can accurately assess the performance of large, medium and small companies within the framework of the whole market. There has also been a growing interest in the performance of medium-sized companies. The newer indices increase the visibility of many medium and small companies.

The FTSE 350 provides a real-time measure covering around 95 per cent of the UK equity market by value. The SmallCap and Fledgling indices are higher risk but likely to boom in a recovery. They are good for the visibility and marketability of smaller companies. Beyond the markets covered by the All-Share and Fledgling indices is Ofex, an unregulated off-exchange dealing facility for companies not eligible for the AIM or the index. It is offered by the broker JP Jenkins Ltd, with daily share information published in the *Financial Times*.

The differentiation between Higher Yield and Lower Yield companies in the FT 350 is an interesting reflection of the decreasing importance of dividends as part of the rewards to investors. Indeed, many of the market's hottest stocks pay no dividends at all. Companies normally have relatively high yields because investors expect their share prices to perform relatively badly. There are three main types of high yielding stocks: stodgy companies like utilities that chug along but are unlikely to produce fireworks; companies in decline that are overdistributing their earnings; and recovery shares that

may or may not make it back. The Low Yield index comprises the market's darlings, companies that are expected to streak ahead of the pack.

Market at a glance

A snapshot of recent price and trading activity in the equities market is provided by the graphs and key indicators published daily on the back page of the newspaper's Companies & Markets section (see Figures 6.5 and 6.6):

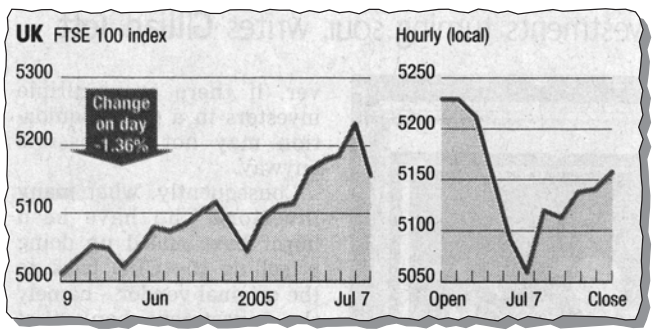

Fig. 6.5 FTSE 100 index

Indices and ratios

FTSE 100	5158.3	-71.3
FTSE 250	7387.9	-109.0
FTSE 350	2627.1	-36.7
FTSE All-Share	2579.74	-35.92
FTSE All-Share yield	3.08	3.04
FTSE100Fut Sep	5158.0	-75.0
10 yr Gilt yield	4.18	4.27
Long gilt/equity yld ratio	1.38	1.41

Best/worst performing sectors

1	Forestry & Paper	+1.4
2	Speciality & Oth Fin	0.0
3	Pharma'ls & Biotech	-0.5
4	Inform Tec Hardware	-0.6
31	Real Estate	-2.1
32	Steel & Other Metals	-2.3
33	Leisure & Hotels	-2.3
34	Transport	-2.7

Fig. 6.6 Indices, ratios and best/worst performing sectors

- **FTSE 100 index:** this provides investors with an instant overview of movements in the UK equity market over recent weeks. The charts also show hourly movements for the previous day. Graphs featuring the performances of individual share prices relative to the All-Share index or the Footsie also appear frequently in the newspaper, usually linked to a news item or comment in the Lex column. These "price relatives" are very

valuable for comparing share performances and for assessing individual price patterns independent of overall market movements.

- **Indices, ratios and sectors:** easy reference for a number of leading market indices and ratios, plus the four best and worst performing sectors and their percentage rises and falls. These include the yield ratio, which measures the relationship between the returns on government bonds and equities (see Chapter 11).

Leaders and laggards

Saturday's newspaper also includes leaders and laggards, a table of notable performances, either good or bad, listing percentage changes in value in the current year for various indices and sectors (see Figure 6.7):

FTSE - LEADERS & LAGGARDS

Percentage changes since December 31 2004 based on Friday July 1 2005

Electricity	+23.42	Food Prods & Process	+7.71	Speciality & Oth Fin	+1.85
Oil & Gas	+20.62	FTSE 250	+7.34	Financials	+1.70
Aerospace & Defence	+19.41	Support Services	+7.34	Real Estate	+1.41
Resources	+18.69	FTSE 100	+7.20	Telecoms Services	+0.89
Const & Building Mat	+15.12	FTSE All-Share	+7.18	Cyclical Cons Goods	+0.70
Tobacco	+14.11	Utilities Other	+6.99	Non-Cyclical Service	+0.63
Pharma'ls & Biotech	+13.68	Transport	+6.66	Banks	+0.23
Mining	+13.01	Automobiles & Parts	+6.58	Food & Drug Retailer	-0.24
Utilities	+12.40	FTSE SmallCap	+6.12	Electronic & Elect	-1.88
General Industries	+12.29	Leisure & Hotels	+5.12	Information Tech	-2.83
Basic Industries	+11.86	Life Assurance	+4.15	General Retailers	-4.52
Non-Cyc Cons Goods	+11.69	Eng & Machinery	+4.14	Forestry & Paper	-5.78
Beverages	+11.64	Health	+3.98	Inform Tec Hardware	-14.86
Non Financials	+9.45	Personal Care	+3.14	Steel & Other Metals	-16.34
Investment Companies	+8.84	Software & Comp Serv	+2.91	Household Gds & Text	-18.15
Chemicals	+8.81	Cyclical Services	+2.64		
Insurance	+8.81	Media & Entertainmen	+2.26		

Fig. 6.7 FTSE leaders and laggards

- **Index:** the percentage changes in the year in various detailed markets and subsections of the FTSE Actuaries indices. Based on the preceding Friday's closing prices, FT and sector indices are ranked in order of percentage increase in value in the current year to date.

Capped indices

Institutional investors use indices for two reasons: benchmarking and derivatives trading. The benchmark index is used for performance measurement, analysing and structuring asset allocation decisions, analysing and managing portfolio risks, as well as being used for a range of stock, sector and market analyses. It often determines the universe within which the fund manager may invest, and holdings in stocks comparative to their weight-

ings within the index determines the level of risk being taken in order to outperform the index. An indexed fund that holds all stock in the index at their index weightings offers the least risk, while an active manager investing in stocks outside the index or concentrated in a small number of stocks heavily overweighted relative to the index offers a much higher risk.

Indexing has become a popular investment strategy. But following Vodafone's takeover of Mannesmann in 2000, its weighting became more than 10 per cent of the FTSE 100 index. And since UK and European Union legislation forbids managers of unit trusts from holding more than 10 per cent in any one stock, it became clear that it was unfair to ask index trackers to measure up against an index that they were not actually allowed to replicate.

The Vodafone deal, combined with other recent and imminent cross-border "mega-mergers", has resulted in a declining number of large companies accounting for an increasingly large proportion of the indices. Investors with funds focused on a single market have become increasingly concerned about the higher levels of risk that such market concentration causes and have been examining the options available to reduce that risk. The long-term solution is to move away from highly concentrated domestic indices to more diversified international indices, and this is beginning to happen (see Chapter 9). In the meantime, the alternative is to cap the weighting of the largest companies in an index and that is what FTSE International has done by introducing capped versions of the FTSE 100 and All-Share indices. These cap indices limit any single stock to an index weighting of 5 per cent.

Monthly averages and private investors' indices

A monthly *Financial Times* table shows monthly averages for a range of indices over the past four months plus the highest and lowest closing values for the FTSE 100, FTSE 250, FTSE 350, FTSE All-Share and FT 30 in the previous month (see Figure 6.8).

A further table, which appears in Saturday's *Financial Times*, contains an alternative series of indices intended for use by private investors (see Figure 6.9).

These indices, produced by FTSE International, in conjunction with the Association of Private Client Investment Managers and Stockbrokers, are designed to give private investors a benchmark against which to measure the performance of their own portfolios. The indices show the investment performance in terms of capital (that is, excluding income) of three model portfolios over four time periods, ranging from one month to five years. The portfolios are: an income one, which contains many UK shares and bonds; a growth one, which is more heavily weighted towards shares; and a balanced one, which is a mix of UK and overseas shares, bonds and cash. These weightings are based on portfolios run by 24 firms of stockbrokers:

- **Growth:** this portfolio contains 60 per cent UK equities, 25 per cent international equities, 10 per cent bonds and 5 per cent cash.
- **Balanced:** this portfolio contains 55 per cent UK equities, 20 per cent international equities, 20 per cent bonds and 5 per cent cash.

MONTHLY AVERAGES OF STOCK INDICES

	June	May	Apr	Mar
FTSE Actuaries Indices				
FTSE 100	5050.3	4928.9	4887.8	4961.8
FTSE 250	7286.5	6883.1	7062.5	7218.2
FTSE 350	2574.4	2501.5	2492.4	2532.7
FTSE Non-Financial	2479.63	2406.37	2400.60	2428.16
FTSE Financial Group	5613.31	5465.96	5456.19	5614.53
FTSE All-Share	2530.28	2456.72	2451.26	2491.40
FTSEurofirst 100	2456.46	2355.59	2339.82	2359.08
FTSEurofirst 300	1133.63	1085.58	1081.89	1089.79
FTSE World	323.35	317.96	317.77	327.20
FTSE Indices				
FTSE Govt Securities	104.32	103.69	101.44	100.33
FT Fixed Interest	143.56	141.84	138.19	137.39
FT 30	2077.1	2023.8	2042.9	2064.4
FTSE Gold Mines	1533.48	1418.15	1520.16	1669.22
SEAQ Bargains (5.00pm)	215,480	228,682	231,244	240,753

	Highest close June	Lowest close June
FTSE 100	5114.4 6th	4980.4 23rd
FTSE 250	7381.7 2nd	7169.5 23rd
FTSE 350	2607.5 6th	2539.3 23rd
FTSE All-Share	2561.7 6th	2494.8 23rd
FT 30	2105.3 6th	2045.6 23rd

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Fig. 6.8 Monthly averages of stock indices

Private investors' indices

Capital performance	30/06/2005	% change 1 month	3 months	One year	Five years
Growth	2819.98	2.32	4.37	12.14	-15.15
Balanced	2524.39	2.28	4.23	11.36	-12.73
Income	2061.58	2.23	3.88	10.07	-7.47
FTSE All-Share index	2560.17	2.73	4.17	14.87	-15.50
FTSE World Ex UK (Loc)	262.57	1.92	5.83	10.33	-27.44
FTSE UK Gilts (All Stocks)	155.68	1.95	3.47	4.88	-0.58
RPI	192.0	0.00	1.05	2.73	12.24

Calculated by FTSE Intl. in association with APCIMS. © FTSE International Ltd 2005. All rights reserved.
These private investor indices, produced by FTSE International, in conjunction with the Association of Private Client Investment Managers and Stockbrokers, are designed to give private investors a benchmark against which to measure the performance of their own portfolios. The Income portfolio contains 47.5 per cent UK equities, 7.5 per cent international equities and 40 per cent bonds and 5 per cent cash. The Growth Portfolio contains 60 per cent UK equities, 25 per cent International equities, 10 per cent bonds and 5 per cent cash. The Balanced portfolio contains 55 per cent UK equities, 20 per cent International equities, 20 per cent bonds and 5 per cent cash. Their values are calculated using the FTSE All-Share index, the FTSE World Index (excluding the UK), the FTSE Gilts All Stocks index and 7-day London Interbank Offer Rate (LIBOR) - 1%.
RPI shown above is for May 2005.

Fig. 6.9 Private investors' indices

- **Income:** this portfolio contains 47.5 per cent UK equities, 7.5 per cent international equities, 40 per cent bonds and 5 per cent cash.
- **Other indices:** the table also shows the performance of the three indices that are used to calculate the performance of the portfolios themselves, plus a measure of

inflation. The indices are the FTSE All-Share, which reflects the overall performance of the UK stock market, the FTSE World Ex UK, which reflects the performance of world stock markets other than the UK; and the FTSE UK Gilts index (see Chapter 11).

The private investors' indices are meant to be indicative rather than precise. They are not meant to be an absolute measure to which brokers aspire. For one thing, the indices take no account of the effects of charges and tax. What is more, they will not reflect exactly the asset mix of an investor's individual portfolio, which can have a dramatic effect on performance. Brokers are all too aware of the danger of private investors using the benchmarks as a stick to beat them with for perceived poor performance. Some refuse to use them, arguing that the whole point of getting a broker to manage a portfolio is that it is a bespoke service. The investor can dictate the precise investment objectives and influence both the asset mix and the stock selection.

This last table includes indices on equity markets outside the UK, the subject of the next three chapters.

“A random walk down Wall Street.”

Burton Malkiel

“Wall Street: A thoroughfare that begins in a graveyard and ends in a river.”

Anon

7

NYSE and Nasdaq

The US equity markets

- **US markets** – the dominant world exchanges: the New York Stock Exchange; the Nasdaq
- **US indices** – the Dow, the S&P and the Nasdaq

US markets

The *Financial Times* provides extensive coverage of the US stock markets, particularly in its international editions and on ft.com. These feature a complete listing of all shares (or common stocks as they are known in the United States), including prices, price changes, highs and lows, volumes traded, yields and price/earnings ratios quoted on the New York Stock Exchange, together with extensive coverage of the American Stock Exchange (Amex) and the market for over-the-counter stocks, the National Association of Securities Dealers Automated Quotation service (Nasdaq). The UK edition also lists details on a significant number of leading US stocks, and all editions carry the main composite indices and trading activity on the main US markets.

With many major stocks traded in both London and New York, and increasing interaction between the two markets, the performance of equity prices on Wall Street can have a significant influence on prices in London, and vice versa. This internationalisation of equity markets was graphically illustrated during the October 1987 crash, the effect of which spread rapidly from Wall Street to the London Stock Exchange.

The New York Stock Exchange

The New York Stock Exchange (NYSE) is the main US exchange (see Figure 7.1). It lists the largest US corporations and is known colloquially as the Big Board. As of 2005, the NYSE listed 2,800 companies with a total market capitalisation of $20 trillion. It is the world's largest equities market, tracing its trading origins in lower Manhattan to 1792. An auction-based marketplace with a central trading floor, the NYSE is a members-owned non-profit organisation. Since 1953, the number of companies or "seats" on the exchange has been constant at 1,366. The NYSE table shows:

- **NYSE stocks:** each stock listing begins with the abbreviated name by which the stock is known.
- **Prices:** the closing price, the change on the previous day's closing price and the price high and low for the day.
- **Dividend, yield, p/e** and **volume:** the current dividend yield, a percentage calculated as the dividend divided by the current price multiplied by 100; the price/earnings ratio, calculated as the current price divided by the current annual earnings per share; and "Volume '000s", the volume of round lots (100 shares each) of the stock traded on the previous day.

The second stock exchange in New York, and the second largest traditional market is the Amex (American Stock Exchange), now owned by the Nasdaq (see below). Elsewhere in the country, there are five more of these traditional exchanges: the Pacific Stock Exchange (with trading floors in both Los Angeles and San Francisco), the Midwest Stock Exchange in Chicago, the Boston Stock Exchange, the Philadelphia Stock Exchange and the

AMERICAS

NYSE

(Jul 6 / 4 pm close / US$)

Stock	Price	Chng	52 week High	52 week Low	Yld	P/e	Vol '000s
3M	72.83	–.79	88.62	72.30	2.3	18.4	3075
AEP	36.84	–.44	37.28	30.41	3.8	12.2	1259
AES Corp	15.95	–.55	17.65	9.20	....	24.5	1948
AFLAC	44.49	–.23	44.72	35.70	1.0	17.0	1351
AT&T	18.91	–.39	19.85	13.70	5.0	....	3134
AbbottL	49.14	+.19	49.87	38.36	2.1	21.6	3258
Abrc&Fitch	70.73	+.17	70.73	28	0.7	30.2	1076
Accenture	23.60	+.47	27.91	21.47	....	17.1	2222
AdvMic	18.51	+.47	24.85	10.86	....	....	5986
Aetna	83.57	–.63	85.08	39.49	....	19.0	2386
AffCom	50.45	–.60	60.76	46.85	....	16.4	1057
AglntT	23.64	+.02	28.27	19.68	....	31.1	1223
AirProdChm	58.98xd	–.52	65.14	48.78	2.2	19.8	935
AlbertoCul	42.90	–.46	55.40	42.05	1.1	19.7	605
Albtsn	21.11	+.09	25.84	19.42	3.6	18.7	2468
Alcoa	26	–.20	34.64	26	2.3	17.2	5692
Allergan	84.08	–.51	88.58	67.67	0.5	29.4	688
AllDataSys	40.95	–.05	48.52	35.32	....	31.0	1059
Allstate	60.38	–.67	61.05	45.82	2.1	11.8	2194
Alltel	62.73	–.63	63.36	49.23	2.4	16.6	2207
Altria	64.62xd	–.43	69.25	45.15	4.5	13.5	4030
Ambac	69.64	–1.12	84.42	62.20	0.7	10.4	371
AmExpr	53.26xd	–.69	56.92	48.11	0.9	18.6	2948
AmerIntl	59.14	–.35	73.12	50.35	0.8	14.2	8150
AmrdaHs	111.07	–2.18	113.25	75.88	1.1	11.6	1211
Ameren	55.05	–.60	55.65	42.57	4.6	18.9	423
AmerCrdt	26.18	+.25	26.18	17.25	....	13.9	752
AmStnd	41.86	–.44	48.03	34.92	1.4	25.4	762
AmTwrCp	21.40	+.34	21.40	13.48	....	....	3241
AmsrceBrgn	69.35	–.22	69.57	49.91	0.1	19.8	531
Amsth	26.01	–.27	26.99	23.84	3.8	14.4	998
Anadarko	85.75	–2.08	87.83	55.53	0.8	12.4	2593
Analog	38.46	+.89	44.25	32.84	1.0	27.5	2497
AnheBsch	45.43	–.52	54.29	45.10	2.2	16.3	1612
Aon Cp	25.37	–.18	28.80	19.20	2.4	13.9	1114
Apache	68.44	–.89	69.33	42.55	0.5	11.9	2374
Aprtl&M	40.91	–.19	41.10	31.50	5.9	....	403
ApBiosys	19.76	–.55	22.68	18.05	0.9	18.8	485
ArchDn	20.96	–.27	25.32	15.43	1.6	18.4	2107
ArchSmth	39.05	–.35	39.40	28.92	4.4	55.0	516
AshInd	60.64	–1.14	71.87	49.07	1.8	8.6	995
Assurant	36.61	+.16	36.61	23.90	0.9	14.0	481
AutoZn	95.10	+.06	99	72.25	....	13.4	784
Autolv	44.27	+.52	51.80	38.96	2.7	13.7	378
AutoData	41.88	–.30	46.23	38.88	1.5	24.2	1635
Autont	20.98	–.04	21.54	15.20	....	14.1	679
AvInbyCom	81.72xd	+.52	81.72	56.88	3.5	64.9	258
Avaya	7.99	....	17.73	7.98	....	16.0	3756
AveryD	52.80	–.13	65.78	51.35	2.9	18.5	348
AvonProd	37.01	–.32	46.11	36.11	1.8	20.1	2018
BB&TCp	40.05	–.48	43.25	36.56	3.8	13.6	698
BJ Serv	54.08xd	–.77	54.85	43.09	0.6	20.3	1443
BMCSftwr	18.31	+.15	19.34	13.79	....	53.9	1512
BakerHu	52.90	–.22	53.12	37.73	0.9	28.9	2478
BallCp	36.85	+.23	45.87	34.38	1.1	13.3	564
BankAm	44.70	–.41	47.44	41.81	4.5	11.2	15352
BankNY	28.69	–.40	33.92	27.25	2.8	15.2	2269
Bard (C R)	67.25	–.08	72.79	51.59	0.8	22.5	419
BarrPhm	49.57	–.38	53.45	32.43	....	27.4	605
Bausch	83.65	–3.85	87.50	57.80	0.6	25.9	1176
Baxter	37.13	–.38	38	29.54	1.6	55.4	1154
BearSt	105.48	+.30	106.68	81.82	0.9	9.6	607
BckmnCltr	63.96	–.0	72.02	52.21	0.9	18.2	280
Becton Dk	52.10	–.26	59.98	46.41	1.4	19.5	1117
BellSoth	26.57	–.13	28.80	25.12	4.4	16.6	4195
BrklyWR	35.93	–.61	36.62	26.23	0.6	10.2	291
BerkHatA	85,375	+1,075	91,700.10	81,400	....	16.4	0
BerkHtB	2,840	+20	3,058	2,703	....	16.4	9
Best Buy	70.79xd	+.03	70.79	44.27	0.5	22.8	1774
BlDeck	88.97	–1.29	90.80	59.33	1.3	13.8	392
Block	58.40	–.33	59.27	45.48	0.9	15.2	872
Boeing	64.29	–1.13	66	47	1.6	29.8	3195
BostonPrp	71.40xd	–.32	71.72	50.75	3.8	30.4	427
BostonSci	28	–.60	42.67	26.89	....	19.0	4915
BoydGaming	52.06	+.03	*57.50	37.93	1.0	27.5	350
BrisMySq	24.88xd	–.39	26.48	22.50	4.5	24.9	2922
LibProp	44.79xd	–.61	45.40	38.19	5.4	25.2	257
Lilly	55.63	–.09	69.37	50.44	2.7	28.1	2406
LmtdBr	21.98	–.22	27.83	18.81	2.7	16.0	1892
LincnN	48.59	+.08	49.30	41.71	3.0	11.3	620
LizClb	40.35	–.65	43.71	33.70	0.6	13.8	581
LockhMa	63	–.98	65.40	51.57	1.6	20.7	1238
Loews	78.24	–.01	79.70	53.62	0.8	10.9	493
Lowes	57.85	–.37	60.25	46.49	0.4	19.4	1818
Lucent Tec	2.93	–.04	4.13	2.36	....	6.2	8950
Lyondell P	26.60	+.50	35.25	16.63	3.4	18.9	1849
M&TBkCp	105.13	–1.30	108.01	87.32	1.7	16.3	222
Markel	340.37	–5.23	367.91	269.20	....	16.9	19
MBIA	60.10xd	+.33	64.83	50.50	1.9	10.5	877
MBNA	25.53	....	28.49	18.45	2.2	15.0	21386
MGIC	64.79	–.11	77.44	57.36	0.9	10.3	553
MGMMirage	40.57	+.47	42.54	20.10	....	31.0	850
Mohawk	85.75	–1.75	93.66	70.25	....	15.4	949
Macrch	67.35	–.21	67.56	46.60	3.9	54.3	469
Manpwr	41.70	+.27	49.67	38.55	1.0	15.7	599
MarathnO	55.14	–1.68	56.82	33.98	2.0	14.3	4378
MarriotA	68.83xd	–.27	69.81	45.08	0.6	24.9	559
MarshMcL	27.76xd	+.07	46.86	24.10	2.4	....	1609
Msh&Il	44.47	–.49	45.06	37.32	2.2	15.3	456
MascoC	31.39	–.20	38.03	29.87	2.5	15.3	1385
Mattel	18.43	–.05	21.42	15.98	2.4	13.5	934
MayDSt	41.07	+.26	41.07	23.95	2.4	25.4	1697
McAfee	27.18	+.68	33.39	16.04	....	21.4	1413
McCormk	31.87	–.75	39.06	31.87	2.0	20.4	493
McDonld	27.70	–.27	34.21	25.75	2.0	14.1	3649
McGrawH	44.06	–.07	47.96	36.55	1.5	22.0	667
McKessnCp	44.30	–.56	44.90	22.98	0.5	....	1126
MdWstvco	27.83	–.36	34.23	27.83	3.3	....	898
MedcoHlthS	50.75	–2.15	54.93	30	....	27.1	12814
Medtronc	51.95xd	–.49	54.92	47.01	0.7	34.9	2453
MellonFi	28.79	+.04	31.34	26.47	2.8	14.0	1660
Merck	30.56	–.54	46.86	26	5.0	12.2	4661
MerLynch	55.34	–.37	61.55	47.53	1.4	11.5	3128
MetLife	46.70	+.07	46.70	33.97	1.0	12.1	2366
MichSto	40.77	–1.15	43.21	25.59	1.0	25.2	366
MicrnTech	10.88	+.38	14.68	9.41	....	15.5	11658
Monsanto	61.03	–.05	67.84	34.60	1.1	39.1	1242
Moodys	45	–.42	46.60	32.49	0.5	30.4	371
MorgStDW	53.36	–.41	60.32	46.80	2.0	13.2	3796
Mosaic	16.02	+.03	18.35	12.30	....	....	507
Motorola	18.50xd	–.01	18.87	12.64	0.9	18.3	10104
MrphyO	53.27	–1.03	54.87	35.07	0.8	18.6	849
Mylan Labs	19.17xd	–.02	20.22	14.69	1.3	25.2	828
NAVTEQ	37.25	–.55	*48.40	35.01	....	54.0	899
NCR	35.14	–.49	39.38	21.13	....	20.2	955
NatioCity	34.84	–.19	39.44	32.51	4.2	8.8	1790
NtSemi	22.63xd	+.10	22.63	12	0.4	19.2	3647
NYComBc	18.45	....	22	17.32	5.4	15.1	1300
NY TmA	30.77	–.14	44.46	30.74	2.1	13.1	1027
NewelRbm	23.81	+.04	24.19	19.11	3.5	....	892
NwfldExpl	41.48	–.95	42.43	26.49	....	16.9	1091
NewmontM	38.25	+.23	49.65	35.10	1.0	38.2	2868
NewsCorpA	16.07	–.12	*18.71	15.19	0.3	....	5027
NewsCorpB	16.76	–.10	*19.20	15.85	0.1	....	686
NiSource	24.89	–.09	24.99	20.54	3.7	15.9	619
NikeB	85.58xd	–1.13	91.70	69.31	1.2	18.6	1077
NobleEn	78.13	–.72	78.85	49.39	0.3	13.1	633
Ndstrm	34.85	–.14	34.99	18.21	1.0	22.5	1364
NorfolkS	31.44	+.17	38.38	24.83	1.4	13.0	1837
Nth Fork	28.36	–.42	30.69	25.41	3.1	14.3	2092
NorthrpG	54.55	–.48	57.75	49.94	1.9	15.6	1134
Nucor Corp	47.86xd	+.41	63.83	36.49	1.3	5.6	2485
OccidPet	80.06xd	–1.92	81.98	47.95	1.5	10.7	1805
OffDep	23	+.09	23.04	14.12	....	21.3	1332
OldRepInt	25.56	–.21	25.79	22.31	2.7	10.5	284
Omnicom	80.47xd	–.88	91.07	66.70	1.1	20.1	1140
PPG Inds	62.28	–.65	73.80	56.63	3.0	16.2	499
Pentair	43.63	+.16	46.03	30.90	1.2	28.7	422
PG&E	37.18xd	–.72	37.93	27.68	3.2	15.8	1680
PMI Gp	38.79xd	–.23	43.67	34.78	0.5	10.5	286
PNCFinGp	54.48	–.53	57.44	49.38	3.7	12.6	603
PP&L	60.04	–.68	60.72	44.77	3.1	16.3	1010
PacHth	77.09	+4.41	77.09	29.70	....	20.3	4461
Pactiv	21.89	–.19	25.68	21.17	....	18.7	444
ParkHn	61.15	–.18	77.81	53.57	1.3	14.0	645
PbdyEngy	55.10	+.90	55.77	25.61	0.5	34.0	1375
Penney	53.30	–.75	54.05	34.33	0.9	20.7	1385
Pepco	23.85	–.40	24.34	17.95	4.2	16.9	738
PepBot	28.20	–.55	31.21	25.80	1.1	16.0	1348
Pepsico	52.58	–.97	57.12	47.85	2.0	20.9	4531
CmpsBc	45.68	+.52	48.67	42.50	3.1	14.7	1252
CmvTch	23.35	–.29	25.58	15.48	....	63.1	1533
Costco	45.36	+.04	49.74	39.74	1.0	21.2	2476
DassSys	47.68xd	+.50	52.36	41.98	0.8	28.7	8
Dell	39.44	–.41	42.38	33.12	....	30.3	9778
Dentply	53.29xd	–.70	57.97	46.74	0.5	20.1	651
ElectArt	56.77	–1.05	69.46	44	....	34.4	2958
Expedit I	50.87	–.01	57.71	45.80	0.6	33.5	749
EBay	33.56	+.02	58.89	31.14	....	53.3	18256
EchostrCm	29.98	....	34.27	27.26	....	24.0	1221
EricsnB	32.60	+.14	33.97	23.54	....	....	1320
ExpScrpt	49.90	–1.37	52.25	29.73	....	25.6	1684
Fastenal	60.39	–2.12	63.85	51.13	1.0	32.6	889
Fiserv	43.20	–.47	44.19	32.44	....	19.1	964
FifThird	41.22xd	....	53.98	40.50	3.4	15.3	1765
Fixtrncs	13.22	–.05	15.42	10.08	....	21.7	3016
FujiPhotoA	32.52xd	+.02	37.95	28.97	0.6	12.1	57
Garmin	48.18	+4.03	62	32.76	1.0	23.9	1644
GenzymeGn	59.70	–.14	64.47	44.50	....	....	2066
GileadSc	44.66	–.13	45.49	28.16	....	39.9	3353
Google	291.52	–4.19	*304.10	174.99	....	....	7947
HudCity	11.55	....	12.60	10.17	2.3	27.0	5833
HntBsh	24.05	–.37	25.17	22.30	3.6	14.1	528
IAClntrAct	23.75	–.30	30.37	19.18	....	....	4277
InfosysTch	77.52	+1.08	77.60	43.50	0.3	49.4	955
Intel	26.50	–.18	27.70	19.68	1.2	21.2	45040
Intuit	45.16	+.35	46.72	35.86	....	22.8	2408
JnprNtwks	24.95	+.23	29.08	19.75	....	75.6	6451
KLA–Tn	44.91	+.54	50.81	35.69	1.1	19.3	5469
KirinBrew	9.51xd	–.15	10.63	8.45	1.0	43.2	160
Lincare	41.47	+.14	45.92	28.93	....	15.7	761
LibMedIntA	46.02	–.23	47.95	29.15	....	....	937
LinearTec	37.12	+.12	40.31	34.42	1.1	26.7	4246
MaximInt	38.68	+.28	49.40	36.60	1.0	23.4	5030
MCI	25.63	–.11	26.70	13.84	6.2	....	9146
McroTch	31.24	+.50	31.24	24.28	1.2	30.3	2538
MercBcsh	51.84	–.75	52.90	44.36	2.9	17.3	268
MrvlTch	39.71	+.53	41.48	19.77	....	55.9	2628
MedImmu	27.06	+.11	28.42	21.85	....	....	1458
Microsft	24.70	–.28	27.39	23.92	1.3	23.8	63641
Mitsui & C	187.92xd	–1.15	206.20	144.45	0.7	58.9	1
NEC	5.36xd	–.06	6.82	5.36	0.9	12.8	139
NTL	68.33	–.67	73.11	47.22	....	....	586
NtwkAp	27.55	–.99	34.64	16.57	....	43.7	5827
NextelA	32.18	–.35	32.76	21.42	....	12.0	10378
NissanMtr	19.89	–.11	22.51	19.30	1.6	....	42
NthnTst	46.52	–.48	49.25	38.87	1.8	19.7	775
Oracle	13.32	+.05	14.63	9.86	....	23.8	59704
PACCAR	68.19	–.17	80.48	54.52	4.2	11.9	1510
Paychex	33.26	+.23	34.40	28.88	1.6	34.3	3228
PETsMRT	30.29	–.25	35.90	25.73	0.4	23.7	1004
Patterson	42.62	–1.56	53.58	34.92	....	31.8	2006
Pixar	43.23	–.57	53.97	33	....	25.3	1340
Popular	25.41	–.04	28.87	21.51	2.5	13.0	391
Qualcom	33.40	–.19	44.55	32.52	1.1	28.3	13226
Ross Str	29.19	–.38	30.41	21.15	0.7	24.9	1086
RschMt	72.56	–1.34	93.96	53.29	....	47.1	3736
Reuters	41.64	–.59	49.35	31.75	2.4	15.7	19
Rexam	43.33	+.89	46.40	37.44	2.8	27.1	4
Rynair	45.16	+.06	49.65	26.16	....	26.1	119
SAFECO	54.90	–.78	55.83	42.65	1.8	11.2	408
Seprcr	58.26	–.63	65.70	42.45	....	....	832
Staples	21.28	–.22	22.59	17.94	0.8	21.3	3819
Santos	32.53	–1.24	35.77	18.09	3.0	45.8	14
SanyoElct	13.05xd	–.39	20.75	12.36	1.4	....	46
SearsHldCp	150.35	–3.51	*156.52	86.40	....	12.1	2241
ShirePhm	33.10	+.78	36.15	23.94	0.5	20.4	688
SiebelSys	8.97xd	–.06	10.52	7.05	1.1	59.8	5578
SigmAl	56.18	+.19	64.50	53.92	1.4	15.8	488
SiriusSat	6.63	+.02	9.01	2.05	....	....	28177
SmftSt	10.04	–.09	19.86	10.04	4.4	....	3430
Starbucks	50.58	–1.40	63.87	42.57	....	45.6	4387
SunMicro	3.70	+.06	5.55	3.31	....	18.5	60181
Symantec	21.49	–.39	33.48	18.23	....	26.5	12947
T.RowePr	63.48xd	+.34	63.48	44.67	1.4	23.0	588
Telenor	23.92	+.37	29.59	19.71	2.6	15.0	10
TevaPhm	29.80	–1.02	34.03	23.65	0.6	19.0	9475
VerSign	29.50	+1.02	35.96	16.44	....	33.1	4812
VolvoB	41.80	+.71	48.29	33.20	3.6	8.1	83
WPP	51.66xd	–.34	60.05	42.79	1.2	....	55
WhFdsMk	123.28	+3.60	123.28	74.02	0.8	51.8	2626
XM Sat Rad	34.24	–.51	40.45	23.83	....	....	3378
Xilinx	26.46	+.78	32.95	25.44	1.1	29.4	9723
Yahoo	34.12	–.48	39.14	25.70	....	49.4	13504

Fig. 7.1 New York Stock Exchange prices

Cincinnati Stock Exchange. Each of these smaller exchanges has some exclusive stocks, usually small or locally owned companies, but they also trade stocks that are listed on the NYSE or the Amex, "dual listed" stocks; no stocks trade on both the NYSE and the Amex.

The smaller regional exchanges offer some distinct features. For example, as it is three hours behind New York, the Pacific market offers continued trading in dual-listed NYSE shares after the NYSE has closed. The Midwest market makes no extra charge for odd-lot transactions, deals of less than a round lot of 100 shares, and odd-lot orders on the NYSE for dual-listed stocks are often transferred there. The Philadelphia market carries a number of options, including an option on the sterling/dollar exchange rate. Like the London market, the Cincinnati has no trading floor, with all transactions conducted by computer and telephone.

The Nasdaq

The NYSE has been around for over two centuries. But in recent years, the NYSE's position as the dominant US stock exchange has been challenged by the Nasdaq, which likes to describe itself as "the stock market for the next century". Run by the National Association of Securities Dealers (NASD), this automated quotation (hence Nasdaq) system was the first screen-based, non-centralised market and now ranks as the world's second largest marketplace by value of all companies listed.

The Nasdaq's origins lie in the mid-1960s, when the Securities and Exchange Commission (the US equivalent of the FSA) decided that the market for small stocks not listed on the major exchanges was suffering because there was no reliable mechanism for sharing prices. The NASD opened such a centralised market in 1971 to provide a high-tech method of setting stock prices and trading securities "over the counter". In contrast

NASDAQ
(Aug 16 / 4 pm close / US$)

ASML Hld		16.95	–.58	18.72	12.41	....	....	2141
ATI Tch		11.80	–.14	20.39	11.35	....	17.4	2441
AdobeS	✠	26.18	–.67	34.20	22.39	....	24.2	5207
Akzo	.	41.19	–.76	46.32	31.85	2.8	11.7	46
Altera		21.63	–.37	24.04	17.75	....	29.6	4877
Amaz.com	✠	44.27	–.77	46.51	31.72	....	....	3589
Amcor	.	22.21	+.28	24.19	19.49	4.0	18.5	15
AmeriTrade		20.29	–.14	20.43	10.17	....	27.8	3186
Amgen Inc	✠	79.51	–1.08	84	52.70	....	39.8	5712
AngloAm		26.22	–.63	26.91	21.50	2.1	20.5	173
ApolloGp	✠	73.56	–.83	85.33	62.96	....	59.3	1049
AppliMat	✠	17.17rd	–.47	18.58	14.50	0.7	19.3	23161
AppleC	✠	46.25	–1.43	47.68	15.36	....	48.7	19052
AsBnCp		32.91rd	–.40	34.85	30.11	3.3	14.0	253
Autdsk		37.56	–.19	39.58	18.41	....	33.5	3115
Biomet		38.10	–.39	49.41	33.91	0.7	27.4	1720
BedBth&B		42.28	–1.28	46.84	34.91	....	24.2	2951
Biogen Ide		41.08	–.63	67.92	33.35	....	....	2559
Broadcm		41.85	–1	43.44	25.52	....	69.8	6040
CDW		60.37	–1.23	68	52.88	0.7	19.4	1000
Clgene		46.73	–.83	48.80	25.17	....	77.9	1041
CHRobn		58.30	–.99	62.65	41.83	1.0	29.6	380
Cintas Cp		42.47	–.80	46.38	37.56	0.8	24.3	704
CRH	♣	28.45	–.51	29.09	22.31	1.0	....	23
CareerEdCp		38.28	–.17	42.32	26.75	....	18.0	1316
ChkPnt Sft		22.30	–.15	25.99	16.97	....	18.9	2443
Chiron		36.06	–.69	48.01	30.76	....	....	762
CinnFn		41.33	–.31	45.92	38.62	3.0	12.5	296
CiscoSys	✠	17.63	–.08	20.46	17.02	....	20.0	59428
CognznTch	♣	45.24	–.06	50.17	25.28	....	46.6	1700
ComcastA	✠	31.52	–.58	34.30	26.86	....	57.3	8369
ComcastASp		31.18	–.51	33.98	26.51	....	....	4053
CmpsBc		46.48	–.89	49.66	42.88	3.0	14.6	714

Fig. 7.2 Nasdaq prices

with the physical trading floor of the NYSE, trading on the Nasdaq is dispersed among more than half a million computer terminals on which "market traders" (independent dealers) post prices at which they are prepared to buy and sell shares.

With less onerous listing requirements than the NYSE, the Nasdaq has always welcomed small, young companies with no earnings, few shares and low share prices, but which are operating in fast-growing industries like information technology and biotechnology. Indeed, the exchange has become synonymous with the technology stocks that are its highest fliers. Such major players as Microsoft, Apple, Intel and Cisco all started here. And while computer companies constitute 15 per cent of the companies on the Nasdaq, they represent 50 per cent of its market value. The *Financial Times* has a daily listing of selected Nasdaq stocks (see Figure 7.2) with the same kind of trading information as for NYSE listed stocks.

There is also daily information in the newspaper on the most active stocks and biggest movers on the NYSE and Nasdaq (see Figure 7.3):

- **Active stocks:** figures on the previous day's ten most actively traded stocks on both the NYSE and the Nasdaq, including the number of shares traded and the stocks' closing prices and changes on the previous day.
- **Biggest movers:** prices and price changes on the stocks with the biggest percentage rises and falls on both the NYSE and the Nasdaq.

TRADING IN STOCKS

NYSE

ACTIVE STOCKS

Monday	Stocks traded	Close price	Day's change
Merck	27,943,600	27.89	-0.17
Pfizer	19,062,500	25.36	-0.19
ExxonMob	10,667,700	59.07	+0.25
TimeWrnr	9,776,400	18.00	-0.09
HewlePac	9,676,200	26.53	+0.04
ProctGam	8,836,000	55.16	+0.62
LibMediaA	8,550,600	8.29	-0.06
GenElec	8,550,500	33.97	+0.02
DltaAir	8,354,900	1.41	-0.09
TexInst	7,996,800	31.95	+0.79

BIGGEST MOVERS

Monday	Close price	Day's change	Day's chge %
Ups			
DowJns	42.01	+2.82	+7.2
ArchDn	21.90	+0.90	+4.3
FPL	42.41	+1.51	+3.7
KingPhm	14.28	+0.48	+3.5
Downs			
DltaAir	1.41	-0.09	-6.0
CalpineCp	2.71	-0.14	-4.9
UST	42.31	-1.46	-3.3
Avaya	9.96	-0.24	-2.4

Based on the constituents of S&P 500 index.

NASDAQ

ACTIVE STOCKS

Monday	Stocks traded	Close price	Day's change
Microsft	41,521,200	26.91	+0.19
CiscoSys	41,362,880	17.69	-0.13
Intel	39,356,250	26.06	+0.41
OSI Pharm	27,641,490	31.92	-8.85
AppliMat	24,926,020	18.52	+0.35
SunMicro	23,666,650	3.60	-
Oracle	22,779,820	13.09	+0.02
JDSUph	21,037,830	1.55	-0.01
Yahoo	21,027,240	33.20	-0.80
Dell	20,533,040	36.28	-0.11

BIGGEST MOVERS

Monday	Close price	Day's change	Day's chge %
Ups			
RschMt	77.49	+4.21	+5.7
MrvlITch	45.79	+1.59	+3.6
Intersil	20.41	+0.51	+2.6
Clgene	47.13	+1.17	+2.5
Downs			
SmnSCI	4.72	-0.19	-3.9
VerSign	23.18	-0.91	-3.8
NtwkAp	23.71	-0.92	-3.7
SanDisk	35.05	-0.91	-2.5

Based on the constituents of the Nasdaq 100 index.

Fig. 7.3 Active stocks and biggest movers

US indices

The United States provides the largest range of stock price indices (see Figure 7.4). Daily information on them is included in the table of "world equity markets at a glance":

US	DJ Industrials	10562.09	10634.38	10600.31	**10940.55**	4/3	**10012.36**	20/4	1.68	18.6
	DJ Composite	3457.33	3482.47	3471.23	**3519.84**	3/8	**3211.74**	20/4		
	DJ Transport	3732.86	3761.59	3747.81	**3876.13**	7/3	**3382.89**	15/4		
	DJ Utilities	394.11	397.14	396.06	**405.27**	3/8	**324.68**	7/1		
	S&P 500	1225.92	1233.87	1230.39	**1245.04**	3/8	**1137.50**	20/4		
	FTSE NASDAQ 500	5381.17	5419.86	5398.30	**5545.28**	3/8	**4791.50**	15/4		
	NASDAQ Cmp	2150.42	2167.04	2156.90	**2218.15**	2/8	**1904.18**	28/4		
	NASDAQ 100	1587.20	1600.71	1591.75	**1627.19**	3/8	**1406.85**	20/4		
	Russell 2000	657.97	665.64	660.00	**688.51**	2/8	**575.02**	28/4		
	NYSE Comp.	7511.35	7564.78	7558.33	**7590.83**	11/8	**6935.31**	28/4		
	Wilshire 5000	(u)	12319.64	12283.79	**12469.86**	2/8	**11217.81**	20/4		

Fig. 7.4 US equity market indices

- **Dow Jones Industrials:** the Dow Jones Industrial Average (DJIA), the main US index, takes the stock prices of 30 blue chip companies (see Appendix 2) and measures their movements. It is calculated by adding the New York closing prices and adjusting them by a "current average divisor", an adjustable figure formulated to preserve the continuity of the Dow over time amid changes in its component parts. Specialist indices are also provided for three other groups of stocks: Composite, Transport (20 airlines, railroads and trucking companies) and Utilities (15 gas and power companies). For all four indices, the information provided comprises: the closing figures for the day alongside the closing for the previous two trading days and the highest and lowest trading level for the year with dates. The main index also has figures for the dividend yield and price/earnings ratio: yield for the Dow is calculated on the basis of the last declared dividend for each constituent worked out at an annual rate.
- **Standard & Poor's (S&P):** this index consists of 500 companies listed on the New York Stock Exchange. While neither as comprehensive as the NYSE Composite nor as famous as the DJIA, the S&P 500 is generally regarded as the most representative guide to the US market, accounting for nearly 80 per cent of the total NYSE capitalisation. Like the FTSE Actuaries series, individual companies are weighted according to their market capitalisation, allowing for the fact that some stocks exhibit a greater influence over the market than others.
- **Nasdaq Composite:** an index of the electronic stock market. This index is often used as an indicator of the market for stocks in technology and the industries of the future.
- **Nasdaq 100:** the 100 largest – by market capitalisation – and most active stocks on the Nasdaq. This index reflects companies across major industry groups, including computer hardware and software, telecommunications, retail/wholesale trade and biotechnology. It does not contain financial companies including investment companies. Eligibility criteria for the Nasdaq 100 include a minimum average daily trading

volume of 100,000 shares. Generally, companies also must have "seasoned" on the Nasdaq or another major exchange, which means they have been listed for a minimum of two years. If a security would otherwise qualify to be in the top 25 per cent of the companies included in the 100 by market capitalisation, then a one-year seasoning criterion applies. If the security is a foreign security, the company must have a worldwide market value of at least $10 billion, a US market value of at least $4 billion and average trading volume of at least 200,000 shares per day.

- **Russell 2000:** this is one of a family of US equity indices produced by the Frank Russell Company. The indices are weighted by market capitalisation and include only common stocks domiciled in the United States and its territories. All are subsets of the Russell 3000 Index, which represents approximately 98 per cent of the US equity market. The Russell 1000 measures the performance of the largest 1,000 companies in the Russell 3000, making up 92 per cent of that index. The Russell 2000 measures the performance of the remaining 2,000 companies in the Russell 3000, and hence is an indicator of how the stocks of smaller companies are doing. As of 2005, the average market capitalisation of the stocks in this index was $1 billion, and the largest company in the Russell 2000 had a market capitalisation of $3.1 billion.
- **NYSE Composite:** the most broadly based of the US indices, covering all common stocks on the exchange.
- **Wilshire 5000:** this measures the performance of all US headquartered equity securities with readily available price data.

The Dow is one of the oldest stock market indicators, and has been published daily in *The Wall Street Journal* since 1896. Periodic additions and subtractions keep the index as a reflection of the broader economy. Only one of its original 12 members still remains in the current 30 – General Electric. The index often reaches new "highs" but since it is not adjusted for inflation, it can only reliably indicate direction of movement. For example, at the end of the 1890s, the Dow stood at 65.73. A century later, on the last trading day of 1999, it closed at 11,497.12, almost three times the closing price five years before. In 2005, it was some way off that high but still over 10,000.

The Dow – not strictly an index but rather an "average" – has traditionally been the most widely followed indicator in the United States, providing a guide to the daily mood of industrial stock markets in the same way as the FT 30 share index did for the United Kingdom. But it is now challenged by myriad other market indicators such as the S&P 500 and the Nasdaq Composite. Most market operators agree the S&P is a far better market gauge, not only because with 500 stocks it is more representative but also because the S&P is weighted by capitalisation rather than price. It is preferred by professional money managers and widely used as a benchmark for tracking instruments.

With the rise to prominence of the Nasdaq, its primary indicator, the Nasdaq Composite has increased in importance. Typically, nowadays, the Dow and the Nasdaq are quoted alongside each other as guides to the market's latest progress, with the former loosely taken to represent "old economy" stocks and the latter the "new economy".

Typical *Financial Times* coverage of what is happening on Wall Street (the collective name for American financial markets, analogous to "the City" for London's markets) looks like this:

> Shares on Wall Street ended lower on Thursday after retail sales from many US companies disappointed the market and investors took profits on gains earlier in the week. Despite the blip over the past two days, many investors remain bullish about equities in the near term as US economic fundamentals continue to come in strong. By the close of trade, the Dow Jones Industrial Average was 0.8 per cent lower at 10,610.10. The Nasdaq Composite fell 1.2 per cent to 2,191.32 and the S&P 500 had slipped 0.7 per cent to 1,235.86. (*Financial Times*, 4 August 2005)

“The best is good enough.”

German proverb

“The trouble with our times is that the future isn’t what it used to be.”

Paul Valery

8

European equities

Stock markets in the eurozone and beyond

- **European equities** – share price movements on leading European markets
- **FTSEurofirst indices** – the new performance measures of Europe's stock markets; the FTSEurofirst 300
- **The changing world of European stock markets**

European equities

Since the launch of the single European currency in 1999 and as the eurozone becomes more integrated, much of the currency risk associated with cross-border European investing in equities and other assets has disappeared. As a result, investors are increasingly taking a pan-European view: the industry sector in which companies operate, rather than their nationality or the location of their headquarters, is becoming more important.

The *Financial Times* has responded to these developments by greatly expanding its coverage of continental European markets both in the newspaper and on ft.com. The Stock Markets pages carry share price information on a substantial number of companies listed in eurozone and non-eurozone countries (see Figure 8.1) and more companies are covered on ft.com. The Market Data page adds information on a range of indices for the overall European equity markets, many recently developed by FTSE International, as well as information on a variety of currencies, money, bonds and derivatives.

The information includes latest closing price, change on the previous trading day, 52-week high and low, the share's yield (its annual dividend payment expressed as a percentage of the share price), the price/earnings ratio and the volume of trading in the shares on the latest trading day. These figures are gathered from local stock exchange data and, currently, given different statistical methods, are not necessarily comparable across national boundaries.

FTSEurofirst indices

The FTSE European Equities series covers in detail the daily movements of the FTSEurofirst group of indices launched by FTSE International in collaboration with Euronext in 2003 (see Figure 8.2). These have been created to give investors a wide-ranging family of "real-time" equity indices covering the European market, against which to measure performance and to encourage the development of derivatives for speculative purposes and for investors to hedge exposures. The table shows the performance of the regional and sectoral indices in euro terms. Investors can also see indices that exclude those countries, such as the UK, which did not join the single currency in the first wave:

- **Index information:** the columns across indicate the name of the index; its closing value in euros; the previous day's percentage change in the index; the day's change expressed in points; the untaxed dividend yield produced by the constituent companies; ex-dividend adjustment year to date; and the total return delivered by the index constituents – the combination of capital gains through changes in share prices and income from dividends reinvested.
- **FTSE Developed Europe indices:** this series of indices encompasses companies in both the eurozone and elsewhere in "developed Europe", notably the UK. One is for "large cap" companies, one for "mid caps" and one for "small caps" plus one that adds together the large and medium cap companies just as the FTSE 350 is made up of the FTSE 100 and the FTSE 250.

EUROPE (Eurozone) €

AUSTRIA
(Jul 7)

Stock	Price	Chng	52 week High	52 week Low	Yld	P/e	Vol '000s
Andritz	75.99	−.51	80.43	39	1.8	18.4	33
BkAustCred	86.47	−.73	88.65	47.90	1.7	21.1	166
BUAG	112.4bz	−1.51	114.85	65	3.9	10.9	71
ErsteBk	41	−.35	44.30	30.05	1.2	18.0	427
Immfnz	7.59	+.03	7.59	6.62	....	22.5	414
Mayr–M	117.40	+.69	138.36	102.55	2.0	12.5	31
MeinlEurLd	14.35	....	*14.35	13	....	....	7
OMV	372	+2.01	372	160.65	1.2	16.0	101
RHI	23.05	+.26	24.88	17.58	....	5.0	289
RaiffsnInt	50.09	−.56	*54.19	39.25	....	....	252
TlkmAust	16.23	−.17	16.60	10.86	1.5	35.3	1975
VA Tech	63	....	64.45	44.25	....	....	–
Verbund	233	+2	233	138.22	1.3	30.5	33
VoestAlr	52.90	−1	59.70	45	3.8	15.5	26
Vst–Alpne	59	−1	67.70	38.41	3.6	6.2	192
Wienbgr	38.15	−.10	38.94	28.50	2.8	15.0	123

BELGIUM/LUX
(Jul 7)

Stock	Price	Chng	52 week High	52 week Low	Yld	P/e	Vol '000s
AGFAGv	22.20	−.30	27.50	19.02	2.0	....	1053
Almncra	74.90	−2	79.95	41.12	1.4	52.0	44
Barco	57.55	−.25	74.75	57.55	2.7	15.8	49
Bekaert	62	−1.10	66.55	47.80	2.3	8.1	26
Belgacom	28.15	−.63	33.05	24.58	3.7	11.0	1289
Cofinimmo	130	−1.20	133.90	110.80	4.8	15.6	10
Colryt	111.70	−1.60	131.70	100.50	1.6	17.3	74
Dihalz	48.75	−.32	59.55	39.05	1.7	21.4	403
Dexia	17.95	−.22	18.87	13.12	2.6	11.4	1962
Electrabl	361.70	−3.80	379.40	262.30	3.3	21.0	64
Fortis	22.72	−.20	23.16	17.15	3.4	8.8	3194
GBL	72.40	−.25	74	49.95	1.7	16.1	188
InBev	28.87	....	29.80	24.65	1.0	14.8	1751
KBC Group	63.80	−.50	67.95	45.12	2.2	11.3	934
Mobistar	68.10	−.20	70.85	51.85	2.2	17.0	202
OmegaPharm	44.50	+.11	44.50	32.68	0.4	14.8	195
SESGlb	12.18	−.13	12.42	6.73	2.0	35.8	3
Solvay	83.45	−1.50	94.90	66.80	2.3	14.1	234
UCB	40	−.74	44.08	35.35	1.6	16.1	273
Umcre	66.15	−.75	73.04	43.74	1.9	11.9	151

FINLAND
(Jul 7)

Stock	Price	Chng	52 week High	52 week Low	Yld	P/e	Vol '000s
ElisaCp	12.64	−.21	13.56	8.93	3.2	16.2	730
Fortum	13.80	−.13	13.93	8.04	4.2	9.6	4417
KoneCorpB	48.77	−.38	*50.16	43.90	....	....	59
MRealB	4.42	−.13	5.78	4.13	2.7	....	587
Metso	18.20	+.15	18.20	9.90	1.9	35.7	1366
Neste Oil	23.01	−.49	*23.50	16.18	....	....	782
Nokia	13.84	−.26	14.39	8.97	2.4	19.8	93641
NordeaBank	7.46	−.14	8.22	5.67	3.8	10.8	1249
OtkmpA	10.50	−.11	14.70	10.50	4.8	4.9	593
PohjO	11.65	−.16	12.05	8	2.9	11.6	192
SampoA	12.55	−.05	12.88	7.45	1.6	9.0	6573
SanomWSOYB	20.06	+.06	*20.85	17.15	4.0	23.1	96
StEnsA	10.55	−.15	12.12	10.09	4.3	11.9	15
StorEnsR	10.63	−.16	12.02	10.05	4.2	11.9	3646
TietoNr	25.50	....	27.99	20.35	3.9	8.0	649
UPMKym	15.75	−.35	17.96	14.84	4.8	8.6	3202

FRANCE
(Jul 7)

Stock	Price	Chng	52 week High	52 week Low	Yld	P/e	Vol '000s
AGF	67.65	−1.45	69.10	44.84	3.8	9.6	720
AXA	20.60	−.60	21.37	15.77	3.0	15.6	24882
Accor	39.30	−.59	39.95	30.40	2.7	32.5	3423
AirFrn–KLM	12.42	−.16	15	11.64	1.2	9.6	5977
AirLiqui	139.80	−1.60	144.10	124.50	2.5	19.4	913
Alcatel	8.78	−.27	12.16	8.24	....	41.8	23703
Alstom	0.82	−.03	0.85	0.32	....	....	22657
Altdis	33.99	−.51	35.95	25.13	2.3	23.3	3
Arcelor	15.96	−.37	19.41	12.60	3.3	3.7	7565
Atos	53.10	−.65	55.15	41.80	....	15.5	456
APRR	49.65	+.06	*49.65	41.36	1.9	37.9	577
AutoSd	47.36	−.39	47.80	32.74	2.2	27.1	502
BIC	48.39	−.91	49.31	34.50	1.9	25.9	33
BNPParb	56.10	−.85	57.10	46.18	3.6	10.1	14792
Bollre	397	−3	410	255	1.3	66.7	0
Bygues	34.18	−.65	34.83	22.36	2.2	13.2	2107
CIC	167.40	+1.40	191	145.90	2.3	17.8	0
CNP	52.60	+.05	58.45	45.78	3.2	11.6	221
CapGem	26.39	−.33	31.56	17.64	....	....	2584
Carrfour	39.26	−.50	41.94	33.70	2.4	17.1	5826
Casino	56.70xd	−1.15	72.75	54.10	3.7	12.4	518
ChristianD	62.70	−2.15	65	45.04	1.5	22.0	530
CimentFr	80.60	−.65	81.90	62.55	2.0	11.6	42
Colas	130	−1.50	136.20	93.10	2.6	26.6	1
CredAgric	20.52	−.26	23.80	19.24	3.2	12.1	7862
Danone	75.70	+2.85	76.75	62.60	1.8	21.1	9020
DassAv	535	−14	565	410	1.4	17.6	2
DassSy	39.76	−.34	41.40	32.86	1.0	29.2	188
Dexia	17.88	−.30	18.86	13.14	2.6	11.3	3208
EADS	25.92	−.59	26.66	20.26	1.9	20.1	3732
Eiffge	73.40	....	73.55	43.56	1.4	8.3	233
Essilr	57.40	−.70	58.10	48.60	1.3	25.6	406
EulerHerm	63.40	−1.60	66.10	43.40	3.9	12.5	54
Eurzeo	74xc	−.35	74.35	47.18	1.2	....	148
Eurrot	29.49	....	29.69	21.01	2.0	23.0	1255
FFP	171	−3.20	175.50	124.40	1.8	7.3	3
Finaxa	77.50xd	−1.75	79.25	47	3.0	16.3	1
FranTele	24.01	−.15	24.88	19.05	4.2	21.1	29329
GalLaf	235	+1	235.20	134.80	0.9	23.5	23
Gecina	94.35	−.55	97.75	64.45	3.9	33.6	28
Hermes	163.30	−2.40	168.30	136.10	1.2	28.3	36
Imerys	55.95	−.50	64.20	46.25	2.7	13.6	69
JCDecx	20.24	−.16	21.81	15.74	....	57.3	185
Klepre	80.40	+.20	80.40	54.30	2.9	36.4	69
LOreal	58.60	−.90	64.75	51.75	1.4	23.8	3491
LVMH	63.50	−1.65	65.15	50.95	1.5	30.8	4655
Lafarge	74.90	−1.30	81.20	67.45	3.2	14.5	1685
Lgardr	58.55xd	−1.25	62.40	47	1.7	21.7	833
MG Met	21.75	−.25	23.01	19.32	3.9	20.7	524
MaurelPrm	18.40	−.10	18.90	9.34	0.8	34.1	398
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
HellPetro	8.88	−.18	9.10	6.54	2.4	49.3	256
HellTel	16.04	−.18	16.36	9.40	2.2	18.7	1292
NatBkG	29.16	−.62	29.78	16.66	2.1	24.3	741
OPAP	23.56	−.30	24.66	15.32	6.3	32.0	1693
PPC	19.78xd	−.38	23.92	18.24	4.6	14.2	656

IRELAND
(Jul 7)

Stock	Price	Chng	52 week High	52 week Low	Yld	P/e	Vol '000s
AlirishBk	17.38	−.25	18.04	12.20	3.4	14.1	4812
AnlrBk	10.35xd	+.10	10.40	6.24	1.2	18.1	1830
BkofIrelnd	13.30xd	−.05	13.50	10.41	3.4	11.7	1583
CRH	21.35	−.34	22.20	17.65	1.5	14.8	1802
ElanCp	5.95	−.15	23.80	2.40	....	....	462
GraftonGrp	9	−.04	10.45	6.49	....	21.5	876
IndN&M	2.49	+.01	2.65	1.85	3.6	22.8	719
IrlTPm	14.30	−.07	15.35	12	3.8	9.4	423
Kerry A	20.25	−.50	20.75	16.85	0.7	23.4	74
Rynair	6.30	−.17	6.69	3.62	....	17.9	7193

ITALY
(Jul 7)

Stock	Price	Chng	52 week High	52 week Low	Yld	P/e	Vol '000s
AEM	1.67	−.03	1.92	1.35	3.2	18.6	5595
Alinza Ass	8.76	−.26	10.61	8.31	4.1	19.0	11841
Autogrill	10.74	−.26	12.85	10.62	1.9	51.9	3400
Autostrada	17.85	−.16	*20.97	15.33	2.2	15.7	255
Autostrade	21.50	−.28	*23.29	19.21	2.4	28.7	5757
BcAntvn	26.46	−.04	27.70	16.25	1.7	27.0	517
BcCarg	2.91	....	3.10	2.80	2.5	3.2	996
BcaFid	4.07	−.10	4.35	3.03	3.9	17.0	7952
BancaInte	3.79	−.09	3.95	2.85	2.8	11.9	46406
BcaIntNCSv	3.58	−.09	3.67	2.18	3.2	11.2	5907
BcLombP	10.51	+.06	10.95	9.69	3.3	22.2	213
BNL	2.65	−.09	2.88	1.67	....	....	19202
BcPEmilR	42.04	−.07	44	31.41	2.3	17.5	45
BcaPopItal	7.97xa	−.15	8.92	7.55	3.5	14.0	2776
BcaMilano	8	−.22	8.74	4.89	1.6	26.1	3513
BcPOvile	16.06	−.38	17.13	12.86	4.2	18.7	2539
BcVerona	14.22	−.20	15.26	13.26	3.5	12.8	4819
Bigari	9.10	−.28	9.64	7.14	2.4	25.3	3281
BuzziUnicm	11.88	−.32	12.92	9.85	2.4	7.8	147
CapItalia	4.50	−.05	4.70	2.37	1.8	29.5	43860
CRFmze	2.07	−.06	2.21	1.44	2.5	23.3	952
CredEmil	8.40	−.03	9.35	6.35	3.0	17.9	719
ENEL	7.07	....	7.70	5.85	9.8	12.9	10655
ENI	22.30	−.16	22.46	16.31	4.0	12.3	83490
Edison	1.83	....	1.84	1.31	....	49.6	5856
Fastweb	35.44	−.36	45.69	33.19	....	....	1860
Fiat	5.82	−.14	6.66	4.52	....	....	15126
Finecogrp	7.45	−.12	7.68	4.29	2.7	5.7	2902
Finmec	0.76	−.02	0.80	0.53	1.7	12.6	67227
Fnd–SAI	22.01	−.37	22.58	17.29	3.4	7.4	1115
GenerAss	25.14	−.64	26.30	21	1.7	24.4	22958
IFIL	3.38	−.04	3.55	2.60	2.0	30.8	1802
Italcm	12.81	−.24	13.90	10.72	2.3	7.8	773
L'Espresso	4.42	−.08	4.94	4.09	2.9	27.2	1895
LotItomfca	26.30	−.61	32.04	20.45	6.5	38.3	365
Luxottca	17.21	−.30	17.55	13.31	1.3	27.8	1872
Mediaset	9.68	−.21	11.10	8.21	3.3	22.9	8639
Medbnc	15.18	−.36	16.12	9.32	2.6	22.1	6207
MedInm	5.06	−.12	5.92	4.64	2.8	26.1	7072
Monddri	7.79	−.13	8.84	7.29	4.5	21.8	2102
MntPaS	2.85	−.08	3.08	2.30	3.0	13.6	10258
Pirelli&Co	0.81	−.02	1.12	0.77	2.6	19.8	55352
RAS	16.18	−.43	18.19	14.10	4.9	15.7	11294
RCS Md	5.50	−.09	6.45	3.21	0.7	52.9	2864
Saipem	11.85	−.21	12.06	7.50	1.3	26.3	4864
SanPIMI	11.39	−.22	12.49	8.79	4.1	12.1	19829
SeatPagG	0.34	−.01	0.36	0.26	....	....	61997
SnamRG	4.35	−.01	4.63	3.49	4.6	16.2	20612
TERNA	2.06	−.04	2.33	1.75	5.6	17.5	21769
TelecmItal	2.49	−.06	3.16	2.34	4.4	34.4	32541
TelcmItalR	2.08	−.04	2.60	1.71	5.8	28.7	64913
Toro	13.50	....	*13.51	12.01	....	....	1839
UniCred	4.30	−.09	4.61	3.83	4.8	12.7	82088
Unipol	3.16	−.05	3.72	2.95	4.4	6.7	2281

NETHERLANDS
(Jul 7)

Stock	Price	Chng	52 week High	52 week Low	Yld	P/e	Vol '000s
ABNAmro	20.21	−.26	21.40	16.49	4.9	8.2	20860
AEGON	10.76	−.20	10.96	8.24	3.9	10.2	19477
ASML Hld	13.10	−.23	14.15	10.26	....	26.7	7590
Ahold	6.70	−.13	7.02	5.04	....	....	13754
Akzo N	33.01	−.51	36.04	25.32	3.6	10.0	1414
Ahrenta	211.80	....	213.50	203.60	....	....	7
Corio NV	45.52	−.86	48.05	34.80	5.3	10.7	277
CorusGp	0.63	−.02	0.90	0.57	....	4.3	16580
DSM	57.45	−.70	58.75	38.45	3.0	22.9	621
EucmPrp	30.24	−.28	30.64	23.85	5.0	....	17
Fortis	22.72	−.19	23.18	17.17	3.4	13.4	12708
Heineken	25.95	−.07	27.25	23.64	1.5	16.1	1843
HeinknHldg	23.55	+.11	24.33	21.44	1.7	14.6	176
ING	23.26	−.43	23.96	18.13	4.6	8.3	24450
KPN	6.77	....	7.50	5.94	5.2	10.7	15728
LogicaCMG	2.66	−.02	2.92	2.24	3.2	....	1869
Numico	32.98	−.44	34.02	23.11	....	40.2	1121
PhilipsE	21.08	−.36	22.53	17.89	1.9	9.7	17177
Randst	29.90	−.40	35.80	21.25	2.2	36.9	453
ReedElsvr	11.36	−.17	11.81	9.91	2.9	16.0	5906
Robeco	24.11	−.39	24.50	20.35	1.7	....	3390
RdmcE	67.55	−1.05	68.90	49.50	4.5	18.9	294
Rolinco	20.52	−.30	20.85	17.03	1.4	....	415
Rorento	42.60	−.08	42.74	39.22	....	....	71
RoyDutch	54.90	−1.50	56.40	40.17	3.4	12.7	40505
SBM Offshr	57.90	−1.05	58.95	34.15	2.3	20.5	457
TNT	20.65	−.27	22.55	17.74	2.8	14.6	1383
Unilever	53.15	−1.25	54.95	44.41	3.6	27.4	6594
VNU	23.41	−.22	24.30	20.43	2.3	37.8	1544
Vedior	12.20	−.22	14.95	11.06	1.6	18.5	1387
WltKlw	15.67	−.30	16.21	13.21	3.5	15.1	2719

Fig. 8.1 European stock markets

FTSE EUROPEAN EQUITY INDICES

Jul 07	Euro index	Day's chge %	Change points	Yield gross %	xd adj ytd	Total retn (Euro) €
FTSEurofirst 80	3954.17	-1.68	-67.40	3.12	104.81	4312.10
FTSEurofirst 100	3792.07	-2.03	-78.54	3.15	87.74	4144.79
FTSEurofirst 300	1136.12	-1.82	-21.09	2.93	25.90	1384.17
FTSEurofirst 300 Ezone	1199.26	-1.61	-19.62	2.94	30.09	1442.51
FTSE Dev Eur L Cap	284.63	-1.63	-4.90	2.99	7.34	309.89
FTSE Dev Eur M Cap	333.77	-1.56	-5.49	2.48	7.40	360.48
FTSE Dev Eur S Cap	386.53	-1.35	-5.50	2.32	7.09	415.60
FTSE AW Dev Eur	182.40	-1.62	-3.12	2.89	4.55	210.22
FTSEurofirst 300 Industry Sectors						
RESOURCES	1505.22	-2.15	-33.10	2.93	30.90	1928.90
Mining	2499.07	-2.55	-65.49	2.37	34.87	3117.06
Oil & Gas	1382.80	-2.10	-29.62	3.01	29.63	1738.49
BASIC INDUSTRIES	1284.49	-1.78	-23.22	2.67	31.10	1608.88
Chemicals	893.44	-1.72	-15.60	2.64	21.82	1116.38
Construction & Bld Matls	1422.36	-1.79	-25.94	2.32	27.88	1712.90
Forestry & Paper	1281.31	-1.86	-24.33	4.52	57.90	1786.23
GENERAL INDUSTRIALS	1094.59	-1.72	-19.16	2.40	23.61	1305.30
Aerospace & Defence	648.36	-2.56	-17.03	2.56	9.42	791.95
Diversified Industrials						
Electronic & Elect Equip	1094.74	-1.34	-14.86	1.90	20.66	1233.72
Engineering & Machinery	1142.46	-1.77	-20.60	3.53	41.45	1457.04
CYCLICAL CONS GOODS	1135.80	-2.06	-23.87	2.39	24.89	1387.38
Automobiles & Parts	661.81	-2.05	-13.86	2.86	18.92	817.07
Household Goods & Texts	2148.54	-2.07	-45.42	1.61	23.08	2435.18
NON-CYC CONS GOODS	1302.09	-1.38	-18.18	2.29	23.19	1535.03
Beverages	1223.08	-2.96	-37.35	2.70	20.00	1514.16
Food Producers & Procesrs	998.88	-0.92	-9.30	2.57	21.47	1175.77
Health	1587.13	-1.25	-20.14	1.14	16.40	1764.36
Personal Care & Hse Prods	1371.25	-1.90	-26.61	2.00	22.87	1519.40
Pharma'ls & Biotech	1051.43	-1.06	-11.21	2.03	16.52	1192.55
Tobacco	3551.58	-2.46	-89.40	3.55	101.63	4845.40
CYCLICAL SERVICES	848.27	-2.30	-19.98	2.62	17.52	1017.84
General Retailers	817.44	-2.75	-23.15	3.39	21.17	1003.98
Leisure & Hotels	1111.33	-2.94	-33.62	2.66	21.01	1372.54
Media & Entertainment	747.85	-2.10	-16.07	2.39	14.55	855.72
Support Services	533.28	-1.91	-10.39	2.87	12.33	622.62
Transport	861.10	-2.09	-18.39	1.84	13.18	1039.16
NON-CYCLICAL SERVS	828.09	-1.74	-14.64	3.27	19.19	962.02
Food & Drug Retailers	780.91	-2.22	-17.77	2.16	14.20	914.61
Telecommunication Servs	801.05	-1.64	-13.34	3.49	19.36	913.91
UTILITIES	1605.72	-1.55	-25.27	3.90	54.88	2233.92
Electricity	1119.06	-1.21	-13.76	4.29	40.96	1552.53
Utilities, Other	1601.64	-1.81	-29.59	3.59	51.76	2206.17
FINANCIALS	1186.91	-1.86	-22.45	3.42	30.94	1487.88
Banks	992.67	-1.72	-17.32	3.60	27.56	1249.05
Insurance	584.24	-2.21	-13.21	2.62	12.54	683.58
Life Assurance	516.03	-2.62	-13.90	3.92	13.41	649.62
Investment Companies	1241.33	-2.22	-28.16	2.16	24.25	1474.39
Real Estate	1153.25	-2.65	-31.35	3.55	22.19	1499.53
Speciality & Other Fin	835.10	-1.12	-9.47	1.95	10.45	969.04
INFORMATION TECH	634.64	-2.14	-13.85	1.30	8.42	677.84
Information Tech Hardware	701.44	-2.16	-15.52	1.44	10.28	753.90
Software & Computer Serv	443.52	-2.03	-9.19	0.79	3.50	462.23

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Fig. 8.2 FTSE European equity indices

- **FTSEurofirst 100:** this index consists of the 60 largest companies by market capitalisation in the FTSE Developed Europe index and 40 additional companies selected for their size and sector representation. It has been designed specifically for the creation of derivatives (stock index futures and options), which need to be based on baskets of very liquid, easily tradeable stocks.
- **FTSEurofirst 300:** this index measures the performance of the 300 largest companies in Europe in terms of market capitalisation, whether they are in the eurozone or not. These are the companies likely to emerge as members of a new "super-league" of leading European businesses as fund managers focus more on investing across the continent. The index represents about 70 per cent of the region's total market capitalisation and has become an accepted European benchmark. The second FTSEurofirst 300 index is made up of the 300 biggest companies in the eurozone.
- **FTSEurofirst 80:** this index comprises the 60 largest companies by market capitalisation in the eurozone, plus 20 companies selected for their size and sector representation.
- **FTSEurofirst 300 industry sectors:** indices for economic groupings (broad areas of industrial activity) and individual industrial sectors. The Eurofirst data carried on ft.com also have information on indices of 18 "supersectors", including numbers of constituents (see Figure 8.3). Companies are increasingly grouped by sector rather than by country in this way since investors are increasingly focusing on comparisons between European companies in the same sector when making investment decisions.

FT.com Data available at www.ft.com/marketsdata

FTSE EUROPEAN EQUITY INDICES

Jul 07	No of stocks	Euro index	Day's chge %	Change points	Yield gross %	xd adj ytd	Total retn (Euro) €
FTSE Dev Eur L Cap	188	284.6	-1.8	-5.3	3.0	7.34	309.9
FTSE Dev Eur M Cap	324	333.8	-1.8	-6.0	2.5	7.40	360.5
FTSE Dev Eur S Cap	990	386.5	-1.6	-6.1	2.3	7.09	415.6
FTSEAW Dev Eur	512	182.4	-1.8	-3.4	2.9	4.55	210.2
FTSEurofirst 80	81	3954.2	-1.7	-67.4	3.1	104.81	4312.1
FTSEurofirst 100	101	3792.1	-2.0	-78.5	3.1	87.74	4144.8
FTSEurofirst 300	310	1136.1	-1.8	-21.1	2.9	25.90	1384.2
FTSEurofirst 300 Ezone	187	1199.3	-1.6	-19.6	2.9	30.09	1442.5
FTSEurofirst 300 Supersectors							
Oil & Gas	11	374.1	-2.1	-8.0	3.0	8.01	390.1
Chemicals	11	351.2	-1.7	-6.1	2.6	8.58	361.5
Basic Resources	8	384.0	-2.4	-9.6	2.8	8.20	395.4
Construction & Materials	12	381.5	-1.7	-6.7	2.3	7.98	393.6
Industrial Goods & Servs	31	353.1	-1.8	-6.4	2.4	7.23	362.2
Automobiles & Parts	9	307.1	-2.1	-6.4	2.9	8.78	316.2
Food & Beverages	17	311.0	-1.6	-5.0	2.6	6.15	320.1
Personal & Hsehold Goods	20	327.7	-2.1	-6.9	2.3	6.08	336.4
Healthcare	17	323.3	-1.1	-3.5	2.0	5.00	330.7
Retail	18	294.9	-2.4	-7.3	2.7	6.36	303.5
Media	15	304.4	-2.1	-6.5	2.4	5.92	312.2
Travel & Leisure	9	312.8	-3.0	-9.8	2.6	6.18	321.8
Telecommunications	19	326.4	-1.6	-5.4	3.5	7.89	337.6
Utilities	21	364.3	-1.5	-5.7	3.9	12.23	382.9
Banks	53	339.1	-1.7	-5.9	3.6	9.36	352.2
Insurance	18	336.0	-2.3	-8.0	3.0	7.57	346.7
Financial Services	12	361.3	-2.1	-7.7	2.7	6.55	373.5
Technology	9	315.0	-2.1	-6.9	1.3	4.18	319.8
FTSEurofirst 300 Eurozone Supersectors							
Oil & Gas	7	374.6	-1.6	-6.3	3.3	9.43	393.3
Chemicals	8	358.1	-1.7	-6.2	2.8	9.19	368.4
Basic Resources	3	326.5	-2.0	-6.7	4.4	14.27	340.6
Construction & Materials	10	386.7	-1.7	-6.8	2.3	8.22	399.4
Industrial Goods & Servs	15	339.1	-1.5	-5.1	2.4	7.61	347.7
Automobiles & Parts	9	307.1	-2.1	-6.4	2.9	8.78	316.2
Food & Beverages	8	308.0	-0.2	-0.7	2.2	5.32	315.4
Personal & Hsehold Goods	11	318.3	-1.9	-6.1	1.7	4.97	324.4
Healthcare	7	339.8	-1.2	-4.0	1.8	6.08	348.2
Retail	8	295.5	-1.6	-4.7	2.0	5.72	301.4
Media	9	323.1	-1.5	-5.1	2.6	7.87	332.2
Travel & Leisure	4	361.8	-1.7	-6.3	3.2	11.15	376.6
Telecommunications	11	330.4	-1.4	-4.7	3.8	10.33	342.6
Utilities	15	368.2	-1.3	-5.0	3.7	13.16	386.5
Banks	37	352.0	-1.6	-5.7	3.3	9.11	364.2
Insurance	11	341.8	-2.3	-8.0	3.0	8.17	353.1
Financial Services	6	415.9	-0.7	-2.9	3.2	7.77	429.7
Technology	8	303.5	-2.1	-6.5	1.4	4.33	308.3

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Fig. 8.3 FTSEurofirst supersectors

Financial Times coverage of the share performance of the leading European companies as reflected in the FTSEurofirst 300 and other leading indices is illustrated in the following extract:

> European equity markets fell sharply yesterday as profit taking was ignited by a number of earnings misses and caution ahead of today's US non-farm payrolls. The FTSE Eurofirst 300 retreated 0.7 per cent, or 8.84 points, to close at 1,178.21. Financials were prominent among those stocks losing ground yesterday after investors holding shares in Société Générale were tempted to sell following its recent strong run. The catalyst was the French bank's announcement of a forecast-beating 18 per cent rise in second quarter net profits, driven by growth at its retail banking and asset management divisions. (*Financial Times*, 5 August 2005)

The changing world of European stock exchanges

Driven in large part by the knowledge that investors want a single trading platform for the largest blue chip European stocks but also by the impact of new technology and the internet, the world of national stock exchanges is changing fast. The multitude of national exchanges is being rationalised and it is not yet clear how it will play out. On the one hand, trading might turn out to be most efficient if it is concentrated in several large traditional exchanges (perhaps eventually only one) that can deliver economies of scale and liquid markets. On the other hand, it might be better to have nimble competition between exchanges with an emphasis on cost-cutting and improved trading technologies – with perhaps a common settlement system.

“In London and New York share prices get out of line in value, but in other places they get even further out of line. You get better bargains in addition to more bargains by looking worldwide.”

Sir John Templeton

“The time to buy is when blood is running in the streets.”

Baron Nathan Rothschild

9

Other international equities

Emerging stock markets and world indices

- **World stock markets** – share price movements on leading global markets; the FT Global 500
- **International equity indices** – the standard performance measures of the world's stock markets
- **The FTSE Global Equity index series** – reading the figures and using the information for these world market indicators
- **International equity investing** – emerging markets

The abolition of exchange control restrictions and the widespread deregulation of financial markets have made possible the globalisation of trading in equities. This has led to an upsurge in the buying and selling of shares across national boundaries. In the United Kingdom, the removal of exchange controls in 1979 led to a massive upsurge in foreign investment. During the 1980s, an increasing proportion of Japan's enormous capital surplus was for the first time being directed towards the world's equity markets. In the United States, fund managers had long taken an excessively parochial view but had made cautious moves towards greater foreign equity investment. This pace has quickened in recent years.

London remains a pivotal point in the global equity market, but it is just one market, albeit in a favourable time zone. For many years, New York has been attracting more equity business, and for a while Japan outstripped the United States in terms of market capitalisation before Tokyo's major shakeout in 1990.

World stock markets

The Companies International pages of the *Financial Times* contain the bulk of global corporate news: financial results, whether quarterly, half-yearly or annual; essential developments in bids and deals; new or revised funding arrangements; changes to shareholding structures; joint ventures; or new products or production processes. In fact they contain anything that is valuable for an accurate and timely assessment of trends and prospects for shareholders and potential investors alike.

The reports attempt to cover all markets in the FTSE world indices, plus many more that are heavily traded and might have a historical relationship with the United Kingdom or with UK companies, such as those in the old Commonwealth or the Americas.

World stock price listings in the newspaper cover nearly 3,000 shares, a quarter being US shares from the two New York exchanges (the NYSE and the Amex) and the national screen-based trading market (Nasdaq). The other world markets covered are the eurozone countries – Austria, Belgium and Luxembourg, Finland, France, Germany, Greece, Ireland, Italy, the Netherlands, Portugal and Spain; the non-eurozone European countries of the Czech Republic, Denmark, Norway, Poland, Russia, Sweden, Switzerland and Turkey; and the rest of the world including Asia-Pacific – Australia, China, Hong Kong, India, Indonesia, Japan, Malaysia, New Zealand, Singapore, South Korea, Taiwan and Thailand – the rest of the Americas – Canada, Brazil and Mexico – and South Africa. The prices for all national markets are as quoted on the individual exchanges and are mostly last traded prices.

Nowadays it is much easier to deal in foreign shares, and, because of market interactions, it is important to understand these markets. One problem for international investors is the unreliability of indicators such as price/earnings ratios for the purposes of international comparison. Different countries employ different accounting conventions, and therefore often differ in their treatment of the earnings component of such ratios.

The FT Global 500

Monday's newspaper devotes half a page to data on the FT Global 500, a snapshot of the world's largest companies ranked by market capitalisation. A table listing the 500 stocks provides price data in local currencies (except for Russian companies, which are quoted in dollars) plus yields, p/e ratios and market capitalisations. There are also charts showing the 20 highest risers and 20 biggest fallers among the 500 companies (see Figure 9.1) plus indicators of best and worst country and sector performance over the previous week.

	Friday close price	Week's change	Week's chge %
SaudiBasic	1286	162.25	14.4
AlRahjhiBk	1809	181.75	11.2
RelianceIn	654.70	53.85	9.0
EricssB	26.20	2.00	8.3
EADS	25.91	1.98	8.3
PTTPCL	226.00	14.00	6.6
StJudeMed	42.20	2.20	5.5
Oil&NatGas	968.15	50.00	5.4
SunLfFin	41.95	2.11	5.3
TataCnslty	1327	60.20	4.8
ResMot	94.95	4.02	4.4
ShellA	33.26	1.41	4.4
Surgnfgz	0.76	0.03	4.2
Exelon	50.69	2.01	4.1
CheungKong	75.75	3.00	4.1
DevonEngy	51.22	1.98	4.0
Centrica	232.50	8.75	3.9
DIRECTV	15.60	0.58	3.9
PubSvEG	59.63	2.25	3.9
Barclays	557.50	20.50	3.8

Based on the FT Global 500 companies, in local currencies.

	Friday close price	Week's change	Week's chge %
GuidantCp	63.90	-8.56	-11.8
EBay	34.37	-3.68	-9.7
Ford	10.21	-1.07	-9.5
ValRio	67.00	-6.79	-9.2
FDX Hl	80.10	-7.22	-8.3
GileadSc	41.75	-3.74	-8.2
LGPhilLCD	46700	-4000	-7.9
NorfolkS	30.34	-2.60	-7.9
BurlinN	46.68	-3.94	-7.8
Sasol	175.00	-14.00	-7.4
DowChem	43.67	-3.43	-7.3
AdobeS	29.24	-2.10	-6.7
Alcoa	26.46	-1.79	-6.3
Boeing	60.59	-4.03	-6.2
MascoC	31.70	-1.96	-5.8
Danaher	51.81	-3.09	-5.6
ZimmerHld	76.32	-4.46	-5.5
Arcelor	15.96	-0.91	-5.4
Alcatel	9.11	-0.50	-5.2
Merck	30.55	-1.67	-5.2

Based on the FT Global 500 companies, in local currencies.

Fig. 9.1 Equity markets: winners and losers by company

International equity indices

The international equity indices are a useful tool in the world of international investment, acting as valuable barometers of local market performance for investors faced with limited background knowledge of foreign stocks. In such circumstances, the active management of an international portfolio may be too costly and risky an exercise, and many fund managers may aim merely to match the performance of equity indices. The more passive management of indexed funds relies largely on the computerised tracking of price movements, and international equity indices have become the key benchmarks for performance measurement.

Figure 9.2 shows indices for the main international markets:

- **Indices:** for most markets, a single national index is recorded daily with the base date indicated. The base figure for almost all indices is 100. The table shows the last three trading days' values for each index, plus recent highs and lows, yield and p/e ratio.

WORLD EQUITY MARKETS AT A GLANCE

Country	Index	Aug 16	Aug 15	Aug 12	2005 High		2005 Low		✠ Yield	✠ P/E
Argentina	Merval	1478.34	(c)	1479.33	**1600.32**	25/2	**1276.48**	15/4	1.87	14.1
Australia	S&P All Ordinaries	4446.3	4425.5	4431.9	**4446.30**	16/8	**3905.50**	4/5	3.64	17.3
	S&P/ASX 200 Res	3236.8	3257.4	3247.3	**3257.40**	15/8	**2407.40**	6/1		
	S&P/ASX 200	4481.2	4459.5	4469.2	**4481.20**	16/8	**3947.10**	4/5		
Austria	ATX Index	3227.15	(c)	3235.23	**3260.66**	10/8	**2415.01**	13/1	1.57	19.1
Belgium	BEL20	3285.01	3280.53	3286.70	**3314.81**	10/8	**2958.79**	14/1	3.19	14.9
	BEL Mid	3144.32	3137.05	3133.21	**3144.32**	16/8	**2645.88**	3/1		
Brazil	Bovespa	27121.50	27375.02	26950.74	**29455.42**	7/3	**23609.97**	20/1	4.3	9.1
Canada	S&P/TSX Met & Min	338.40	338.77	338.76	**340.47**	11/8	**249.29**	5/1	2.03	18
	S&P/TSX 60	595.26	598.82	600.74	**601.27**	11/8	**498.36**	7/1		
	S&P/TSX Comp	10595.91	10650.68	10683.10	**10699.89**	11/8	**9006.22**	7/1		
Chile	IGPA Gen♥	9773.65	(c)	9824.81	**10101.18**	2/8	**8620.05**	18/1	3.5	17.1
China	Shanghai A	1236.88	1247.12	1227.12	**1383.68**	8/3	**1062.45**	11/7	2.1	12.3
	Shanghai B	68.37	68.80	67.43	**83.98**	9/3	**51.34**	21/7		
	Shenzhen A	289.17	290.77	283.46	**344.05**	9/3	**244.71**	18/7		
	Shenzhen B	236.34	238.78	238.89	**276.84**	9/3	**199.25**	18/7		
	FTSE/Xinhua A200	2856.52	2889.79	2853.94	**3196.73**	8/3	**2492.37**	3/6		
	FTSE/Xinhua B35	3165.92	3199.69	3186.63	**3720.70**	8/4	**2589.43**	18/7		
Colombia	CSE Index	(u)	(c)	6916.49	**6989.70**	11/8	**4270.11**	6/1	2.27	23.2
Croatia	CROBEX	1871.33	(c)	1862.61	**2121.42**	1/3	**1566.43**	7/1	na	na
Cyprus	CSE General	87.13	(c)	87.39	**91.17**	14/2	**72.23**	3/1	2.88	17
Czech Republic	PX 50	1296.3	1288.5	1285.1	**1296.30**	16/8	**1050.60**	3/1	2.39	19.3
Denmark	KFX	367.94	367.33	366.46	**373.34**	9/8	**285.22**	24/1	1.67	18.2
Egypt	Hermes Financial	41868.34	41604.86	(c)	**43542.36**	20/7	**25024.12**	3/1	na	na
Estonia	Tallinn General	617.58	618.13	619.29	**619.29**	12/8	**451.13**	3/1	na	na
Finland	Hex General	7336.91	7385.06	7410.18	**7579.46**	19/7	**6084.13**	24/1	2.81	14.5
France	CAC 40	4444.57	4466.58	4476.48	**4527.11**	10/8	**3816.14**	12/1	2.7	14.7
	SBF 120	3183.12	3198.20	3203.86	**3238.43**	10/8	**2711.68**	12/1		
Germany	M-DAX	6779.60	6769.86	6780.79	**6862.90**	10/8	**5409.81**	5/1	2.15	12.8
	XETRA Dax	4883.81	4922.34	4937.33	**4990.57**	10/8	**4178.10**	28/4		
	TecDAX	584.35	583.96	586.23	**602.16**	2/8	**498.71**	28/4		
Greece	Athens Gen	3280.28	(c)	3277.73	**3323.66**	10/8	**2818.33**	5/1	3.08	19.3
	FTSE/ASE 20	1825.87	(c)	1831.15	**1859.59**	10/8	**1567.29**	3/5		
Hong Kong	Hang Seng	15443.62	15466.06	15450.95	**15466.06**	15/8	**13355.23**	18/4	2.92	15.2
	HS China Enterprise	5499.34	5539.39	5481.99	**5539.39**	15/8	**4501.61**	26/5		
	HSCC Red Chip	1957.55	1968.66	1954.18	**1968.66**	15/8	**1441.33**	11/1		
Hungary	Bux	20844.73	20418.18	20179.14	**21354.10**	2/8	**14586.69**	10/1	2.51	19
India	BSE Sens.	7768.24	(c)	7767.49	**7816.51**	11/8	**6102.74**	12/1	1.89	14.8
	S&P CNX 500	2103.65	(c)	2093.20	**2103.65**	16/8	**1653.80**	24/1		
Indonesia	Jakarta Comp.	1113.83	1118.27	1153.97	**1192.20**	3/8	**1000.88**	3/1	3.37	11.9
Ireland	ISEQ Overall	6717.50	6697.64	6739.24	**6810.94**	1/8	**5798.49**	28/4	2.13	14.6

(c) Closed. (u) Unavailable. † Correction. ♥ Subject to official recalculation. The America's indices are latest available for this edition. ✠ Yields and

Fig. 9.2 World equity markets at a glance

Country	Index	Aug 16	Aug 15	Aug 12	2005 High		2005 Low		✠ Yield	✠ P/E
Israel	Tel Aviv 100	708.91	708.98	(c)	**711.89**	3/8	**629.27**	5/1	2.58	3.8
Italy	S&P MIB	33600.0	(c)	33783.0	**34027.00**	10/8	**30645.00**	12/1	3.08	18.6
	MIDEX	32569.0	(c)	32560.0	**33103.00**	2/8	**29555.00**	28/4		
	Mibtel General	25741.0	(c)	25831.0	**26012.00**	10/8	**23489.00**	12/1		
Japan	Nikkei 225	12315.67	12256.55	12261.68	**12315.67**	16/8	**10825.39**	17/5	1.15	29.4
	Topix	1252.12	1248.77	1245.13	**1252.12**	16/8	**1109.19**	18/5		
	S&P-Topix 150	1027.69	1025.52	1024.42	**1027.69**	16/8	**912.42**	18/5		
	2nd Section	3799.91	3790.98	3782.24	**3800.95**	1/8	**3041.31**	4/1		
Jordan	Amman SE	8054.56	7976.84	(c)	**8276.92**	25/7	**4455.95**	10/1	na	na
Kenya	NSE 20	4035.72	4016.32	4012.42	**4280.80**	13/7	**2955.99**	3/1	na	na
Latvia	RIGSE	494.72	494.08	493.64	**500.55**	19/7	**408.62**	3/1	na	na
Lithuania	ViLSE	431.38	(c)	429.14	**431.38**	16/8	**289.40**	3/1	na	na
Luxembourg	Lux General	978.14	(c)	982.17	**982.17**	12/8	**848.83**	20/1	2.49	21.4
Malaysia	KLSE Comp.	926.49	927.92	937.04	**952.59**	3/8	**860.73**	31/5	3.14	12.9
Mexico	IPC	(u)	14842.70	14673.22	**14842.70**	15/8	**11739.99**	18/4	1.65	11.4
Morocco	MASI	5078.63	5050.72	5008.13	**5078.63**	16/8	**4352.67**	4/4	na	na
Netherlands	AEX	394.64	395.66	396.06	**401.57**	10/8	**346.95**	28/4	3.06	13.2
	AEX All Shr	591.33	593.05	593.12	**599.71**	10/8	**514.53**	12/1		
New Zealand	NZSX 50	3356.94	3338.05	3340.00	**3372.88**	1/8	**2900.78**	9/5	4.07	15.6
Nigeria	SE All-Share	21812.61	21868.34	21735.68	**23973.66**	10/1	**20661.44**	6/4	na	na
Norway	Oslo All-Share	344.78	349.73	347.97	**349.73**	15/8	**243.81**	5/1	2.81	15.9
Pakistan	KSE-100	7139.09	7122.98	7150.65	**10294.88**	15/3	**6220.28**	3/1	5.97	12.6
Peru	Lima Gen	(u)	4518.79	4491.07	**4532.20**	11/8	**3703.17**	13/5	4.44	15.6
Philippines	Manila Comp	1993.58	2005.99	2038.10	**2166.10**	7/3	**1813.04**	6/7	1.7	19
Poland	Wig	31008.13	(c)	30736.04	**31320.17**	9/8	**25206.50**	21/1	3.34	16.3
Portugal	PSI General	2345.40	2343.64	2334.56	**2379.26**	8/2	**2233.78**	3/1	3.13	16.8
	PSI 20	7762.39	7755.48	7723.00	**8088.63**	8/2	**7398.43**	8/6		
Romania	BET Index	5733.99	5755.86	5678.53	**6525.08**	24/2	**4504.47**	28/3	1.04	32.4
Russia	RTS	836.25	812.30	805.70	**836.25**	16/8	**591.67**	20/1	1.11	12
Singapore	Straits Times	2305.30	2279.76	2303.20	**2377.13**	2/8	**2065.71**	25/1	2.81	13.9
Slovakia	Sax	486.43	484.66	477.73	**507.98**	14/3	**324.19**	25/1	na	na
Slovenia	SBI 20	4572.93	(c)	4577.03	**5131.61**	1/2	**4396.80**	30/6	na	na
South Africa	FTSE/JSE All Share	15716.67	15854.48	15775.90	**15854.48**	15/8	**12467.30**	28/4	2.88	13.5
	FTSE/JSE Top 40	14276.43	14414.23	14336.28	**14414.23**	15/8	**11223.82**	20/1		
	FTSE/JSE Res 20	25897.63	26361.82	26107.91	**26361.82**	15/8	**18681.70**	4/1		
South Korea	KOSPI	1116.93	(c)	1130.22	**1130.22**	12/8	**870.84**	7/1	2.04	9.1
	KOSPI 200	144.30	(c)	146.04	**146.04**	12/8	**112.71**	7/1		

P/E ratios relate to a sample of stocks that cover at least 75% of each market's capitalisation. They are supplied by Thomson Datastream and are

All these indices are benchmarks commonly used by local investors. They are designed to provide an accurate reflection of the daily movement of individual markets. More than one national index is published in the case where a single index does not give the full picture or where two or more are commonly used. For example, one national index may comprise the market's major companies while a second may reflect a wider market.

For France there are two indices: the broadly based SBF 120 and the CAC 40, a real-time index of the largest stocks. In Germany, three indices are commonly used: the M-DAX, TecDAX and the XETRA Dax real-time index introduced at the end of 1987.

The Nikkei 225 is the most widely quoted measure of stock price movements on the Tokyo Stock Exchange, the world's third biggest in terms of market capitalisation. Not strictly an index but an average of 225 shares, it is not weighted according to market capitalisation, so smaller firms can move the index as much as bigger ones. The index is run by the *Nihon Keizai Shimbun*, Japan's main financial daily newspaper. Nikkei is an abbreviation of the newspaper's name. The Nikkei is a benchmark similar to the Dow or the FT 30 but is more widely followed than the comprehensive Tokyo Stock Exchange index (Topix). The latter provides a more accurate guide to the state of the overall market.

Local indices carry great credibility in their local markets, but do not provide the whole picture for the global investor. For example, they may include equities not freely available to international fund managers or some national issues may be illiquid from the viewpoint of committing funds globally.

A table in Saturday's *Financial Times* lists the main world market indices, their latest values, and their percentage changes on a week previously and on the beginning of the year (see Figure 9.3).

Market week

			% change: since	
		Fri value	5 day	31/12/04
UK	FTSE All-Share	2583.90	1.6	7.2
UK	FTSE 100	5161.00	1.6	7.2
UK	FTSE 250	7446.20	1.6	7.3
UK	FTSE SmallCap	2926.88	-0.1	6.1
UK	FTSE Fledgling	3333.68	0.5	5.8
UK	Hoare Govett Sm Co	†2945.44	0.1	7.8
UK	Gilts: FTSE All Stks	155.29	0.2	1.6
Global	FTSE World ($)	†322.50	-0.1	-1.2
Global	FTSE All-World ($)	†181.15	-0.1	-1.1
US	Dow Jones Indl	*10307.43	0.1	-4.4
US	S&P Composite	*1193.86	0.2	-1.5
US	Nasdaq 100	*1493.36	-0.5	-7.9
Japan	Nikkei 225	11630.13	0.8	1.2
Europe	FTSEurofirst300	1149.76	0.7	10.4
Germany	XETRA Dax	4617.07	1.1	8.5
France	CAC40	4269.62	1.7	11.7
Italy	Comit 30	325.41	1.6	4.2
HK	Hang Seng	14201.06	-0.2	-0.2

†Previous close. *Latest available. Sources: Hoare Govett, FTSE Intl, Reuters.

Fig. 9.3 Market week

The FTSE Global Equity index series

The FTSE Global Equity index series covers global equity markets (see Figure 9.4). Owned by FTSE International, it is an update and expansion of a series called the FTSE All-World index series. The current series, launched in September 2003, is based on nearly 8,000 equity securities from 48 countries, representing at least 98 per cent of the total market capitalisation of the world's main stock exchanges.

Reading the figures

- **Regional indices:** the complete global equity index series is divided into seven "regional universes" – Developed Europe, Emerging Europe, North America, Japan, Asia Pacific excluding Japan, Latin America and the Middle East and Africa. In each region,

FTSE GLOBAL EQUITY INDEX SERIES

Jul 06

Countries & regions	No of stocks	US $ index	Day %	Mth %	YTD %	Total retn	YTD %	Gross Div Yield
FTSE Global All-Cap	**7838**	**303.70**	**-0.1**	**0.7**	**-0.7**	**321.04**	**0.7**	**2.1**
FTSE Global Large Cap	1121	283.92	-0.2	0.1	-1.8	301.18	-0.4	2.2
FTSE Global Mid Cap	1892	354.29	0.0	1.7	2.5	371.95	3.7	1.7
FTSE Global Small Cap	4825	364.68	-0.1	2.4	1.4	381.28	2.4	1.7
FTSE All-World (Large/Mid Cap)	3013	181.34	-0.1	0.5	-0.9	200.46	0.4	2.1
FTSE World (Large/Mid Cap)	2572	322.78	-0.2	0.4	-1.1	478.64	0.3	2.1
FTSE Global All-Cap ex UK	7361	304.06	-0.3	0.6	-0.7	320.25	0.6	2.0
FTSE Global All-Cap ex USA	5435	329.12	0.5	0.8	-1.1	353.18	0.7	2.5
FTSE Global All-Cap ex Japan	6515	304.16	-0.1	0.9	-0.3	322.30	1.2	2.2
FTSE Global All-Cap ex Eurobloc	7096	299.94	-0.3	0.6	-0.3	315.74	0.9	2.0
FTSE All-World Developed	2097	292.48	-0.2	0.4	-1.2	309.33	0.1	2.1
FTSE Developed All-Cap	6097	299.82	-0.2	0.6	-1.0	316.65	0.3	2.0
FTSE Developed Large Cap	778	278.95	-0.2	0.0	-2.2	295.65	-0.8	2.2
FTSE Developed Europe Large Cap	188	300.32	0.7	0.9	-3.0	326.98	-0.6	2.9
FTSE Developed Europe Mid Cap	325	351.91	0.8	0.4	-0.3	380.07	1.7	2.4
FTSE Developed Europe Small Cap	992	406.68	0.9	1.5	2.3	437.27	4.1	2.3
FTSE All-World Developed Europe	513	192.43	0.8	0.8	-2.5	221.79	-0.2	2.9
FTSE North America Large Cap	280	264.09	-0.8	-0.2	-1.2	276.58	-0.3	1.9
FTSE North America Mid Cap	531	345.84	-0.3	3.0	4.8	358.38	5.5	1.4
FTSE North America Small Cap	1826	346.29	-0.5	3.3	0.6	357.84	1.3	1.3
FTSE All-World North America	811	172.10	-0.7	0.4	0.0	186.52	0.9	1.7
FTSE All-World Dev ex North Am	1286	186.71	0.5	0.3	-2.9	211.47	-1.0	2.6
FTSE Japan Large Cap	176	276.57	-0.1	-1.8	-7.6	284.34	-7.0	1.1
FTSE Japan Mid Cap	302	348.32	-0.3	-1.0	-1.4	358.05	-0.8	1.0
FTSE Japan Small Cap	845	391.90	0.1	-0.5	3.6	405.54	4.4	1.2
FTSE Japan (Large/Mid Cap)	478	110.82	-0.1	-1.6	-6.4	128.89	-5.7	1.1
FTSE Asia Pacific Large Cap ex Japan	322	350.96	0.1	0.5	3.2	381.10	5.1	3.2
FTSE Asia Pacific Mid Cap ex Japan	535	367.18	0.2	0.3	1.2	394.26	2.8	2.8
FTSE Asia Pacific Small Cap ex Japan	1011	349.89	0.4	1.2	3.8	375.36	5.4	2.6
FTSE All-World Asia Pacific ex Japan	857	265.84	0.1	0.5	2.8	307.96	4.7	3.1
FTSE All Emerging All-Cap	1741	385.32	0.4	1.8	4.0	414.26	5.9	2.9
FTSE All Emerging Large Cap	343	390.26	0.4	2.1	4.9	420.41	6.8	2.9
FTSE All Emerging Mid Cap	573	373.62	0.2	0.4	-0.2	400.01	1.6	2.8
FTSE All Emerging Small Cap	825	369.11	0.4	2.4	6.7	394.18	8.3	2.4
FTSE All-World All Emerging Europe	64	363.84	2.0	7.9	10.4	404.94	12.7	2.0
FTSE Latin Americas All-Cap	200	507.57	-0.6	3.6	8.0	556.85	10.5	3.8
FTSE Middle East Africa All-Cap	202	399.67	0.8	-0.4	-5.5	433.95	-3.7	2.8
FTSE UK All-Cap	477	300.54	1.0	1.3	-0.7	328.42	1.2	3.1
FTSE USA All-Cap	2403	283.05	-0.7	0.5	-0.2	295.31	0.6	1.7
FTSE Europe All-Cap	1608	321.01	0.8	1.0	-1.8	348.56	0.5	2.8
FTSE Eurobloc All-Cap	742	329.69	0.6	1.0	-3.0	358.20	-0.5	2.8

FTSE All-World Industry Sectors	No of stocks	US $ index	Day %	Mth %	YTD %	Total retn	YTD %	Gross Div Yield
Resources	**158**	**326.94**	**0.1**	**7.8**	**18.6**	**374.23**	**20.4**	**2.1**
Mining	46	497.77	1.1	3.2	5.2	565.91	6.4	1.9
Oil & Gas	112	311.99	-0.1	8.6	20.9	357.60	22.7	2.1
Basic Industries	**346**	**295.07**	**0.0**	**-0.6**	**-3.7**	**334.70**	**-2.0**	**2.5**
Chemicals	117	270.52	-0.1	-1.9	-3.9	306.72	-2.3	2.4
Construction & Building Materials	116	337.30	0.2	2.4	4.7	381.32	6.3	1.9
Forestry & Paper	31	240.99	-0.9	-2.3	-17.2	279.26	-15.4	3.4
Steel & Other Metals	82	329.94	0.5	-1.6	-8.9	369.83	-7.0	3.2
General Industrials	**284**	**182.86**	**-0.4**	**-2.1**	**-2.6**	**200.48**	**-1.5**	**1.9**
Aerospace & Defence	25	222.69	-0.9	-1.7	7.0	245.50	8.2	1.9
Diversified Industrials	61	171.00	-0.6	-3.1	-5.0	189.95	-3.8	2.3
Electronic & Electrical Equipment	105	164.17	0.0	-2.2	-4.9	176.16	-3.9	1.4
Engineering & Machinery	93	286.54	0.1	0.0	-2.1	316.60	-0.7	1.7
Cyclical Consumer Goods	**167**	**194.95**	**0.3**	**1.0**	**-6.3**	**215.05**	**-5.0**	**1.9**
Automobiles & Parts	79	198.75	0.5	1.0	-8.1	221.24	-6.6	2.2
Household Goods & Textiles	88	185.17	0.1	0.8	-3.1	200.59	-2.3	1.5
Non-Cyclical Consumer Goods	**350**	**206.41**	**-0.3**	**-2.0**	**1.0**	**226.55**	**2.2**	**1.9**
Beverages	47	219.93	-0.5	-2.1	0.1	242.96	1.4	2.3
Food Producers & Processors	91	265.43	-0.2	-3.0	-3.4	298.80	-1.8	2.4
Health	77	277.42	-0.6	0.8	9.1	288.57	9.4	0.5
Personal Care & Household Products	28	246.01	-0.5	-4.2	-3.6	268.99	-2.6	2.0
Pharmaceuticals	92	160.13	-0.1	-2.1	0.1	174.62	1.4	2.0
Tobacco	15	398.00	-0.2	-3.2	4.4	502.64	6.9	4.0
Cyclical Services	**498**	**191.57**	**-0.3**	**-0.5**	**-5.0**	**203.69**	**-4.2**	**1.4**
General Retailers	115	257.97	-0.6	1.1	-3.2	272.23	-2.5	1.2
Leisure & Hotels	61	194.16	-0.4	-0.7	-3.1	206.69	-2.3	1.6
Media & Entertainment	125	140.40	-0.1	-1.0	-7.7	149.03	-7.0	1.2
Support Services	68	160.73	-0.2	-2.0	-7.1	172.18	-6.2	1.5
Transport	129	262.91	0.0	-1.5	-2.7	286.92	-1.5	1.9
Non-Cyclical Services	**154**	**123.62**	**-0.2**	**0.4**	**-6.4**	**138.00**	**-4.5**	**3.0**
Food & Drug Retailers	39	176.60	-0.2	-0.5	2.4	191.23	3.6	1.5
Telecommunication Services	115	115.64	-0.2	0.6	-8.2	129.94	-6.1	3.3
Utilities	**150**	**219.89**	**-0.8**	**1.3**	**4.8**	**265.32**	**7.4**	**3.4**
Electricity	99	242.00	-1.0	1.8	6.2	293.42	8.7	3.5
Utilities Other	51	228.58	-0.3	0.3	2.3	276.04	5.0	3.3
Financials	**662**	**216.82**	**0.0**	**1.0**	**-3.8**	**246.71**	**-2.0**	**2.8**
Banks	272	243.97	-0.1	-0.4	-5.1	285.48	-2.9	3.4
Insurance	73	164.62	0.2	2.6	-3.3	177.95	-2.1	1.8
Life Assurance	36	179.68	0.3	2.6	2.1	204.26	3.5	2.3
Investment Companies	21	228.75	1.1	0.9	1.2	258.31	2.9	2.4
Real Estate	111	279.52	0.1	2.0	1.1	333.23	3.2	3.5
Speciality & Other Finance	149	192.77	0.0	3.2	-3.8	207.71	-3.0	1.6
Information Technology	**244**	**83.85**	**0.0**	**-1.1**	**-3.8**	**86.37**	**-3.3**	**0.8**
Information Technology Hardware	163	74.50	0.1	-1.2	-0.7	76.91	-0.2	0.9
Software & Computer Services	81	113.00	-0.3	-0.9	-8.8	115.87	-8.4	0.7

www.ftse.com. On September 22 2003, FTSE launched the FTSE Global Equity Index Series. The family contains the new FTSE Global Small Cap Indices and broader FTSE Global All Cap Indices (large/mid/small cap) as well as the enhanced FTSE All-World Index Series (large/mid cap). This table has been updated to reflect the additional indices. The FTSE Industry Sectors table relates to the FTSE All-World Index Series Sectors (large/mid cap). To learn more about the enhancement and new indices, please visit www.ftse.com/geis. © FTSE International Limited 2005. All rights reserved. 'FTSE', 'FT-SE' and 'Footsie' are trade marks of the London Stock Exchange and The Financial Times and are used by FTSE International under license. **For constituent changes please see FTSE website.**

Fig. 9.4 FTSE Global Equity index series

companies are categorised by market capitalisation into large cap, mid cap and small cap. The classifications allow the generation of an array of different indices, such as North American small caps or Global large caps. Figures are shown for many of these indices, including the value of each index in dollars, the change on the previous day and month and since the start of the year, plus the total return and gross dividend yield.

- **FTSE industry sectors:** stocks are also allocated to sectors under the FTSE Global Classification System, which in turn generates indices of sectoral or sub-sectoral performance. The classification system features 10 economic groups, 36 industry sectors and 102 industry subsectors. This system was introduced to reflect the changing economic realities of the business world and to harmonise the sectoral breakdowns of the whole family of FTSE indices – UK, European and world – to allow global comparisons across sectors.

Using the information

The standard equity indices of Figure 9.2 act as barometers of local market performance for investors faced with limited background knowledge of foreign stocks. Designed to give an accurate reflection of the daily movement of individual markets, they carry great credibility in their local markets. But they may not provide the whole picture for the global investor, particularly if they include equities not freely available to overseas investors or in closely held local companies. That is the advantage of the FTSE Global Equity index series, a set of high-quality indices of the international equity market for use as a benchmark by the global investment community.

Markets, companies and securities are only included under the following criteria: the local exchange must permit direct equity investment by non-nationals; accurate and timely data must be available; there should be no significant exchange controls that would prevent the timely repatriation of capital or dividends; significant international investor interest in the local equity market must have been demonstrated; and there must be adequate liquidity. Also excluded are companies where 75 per cent or more of the issued capital is controlled by dominant shareholders, or where less than 25 per cent of the shares are available to investors through the local market. Each subset aims to capture at least 70 per cent of the total market value of all shares listed on the domestic exchange or 85 per cent of the eligible universe of stocks. In some countries, this is not possible because of restrictions on foreign shareholdings.

The indices aim to cover a significant proportion of the stocks listed in each market rather than concentrating merely on the largest companies. Companies and markets are only included where a timely and reliable source of daily price movements is available. To ensure that they reflect a reasonable marketability of shares, companies with a market capitalisation of less than $100 million are generally excluded.

The Global Equity index series is designed to represent global equity markets and to reflect the increases in cross-border equity investment, particularly from the United States and Japan. As the shift continues towards global and sector-based investment

strategies, it responds to a growing need for global and cross-border sectoral benchmarks. It also allows international investors to manage both their developed and emerging market portfolios within a single structure and coordinate their exposures across all types of risk. It is intended mainly for such end-users as pension fund managers, consultants and money managers. Its primary function is global equity performance measurement, hence it is essential that shares that make up the index can be purchased and sold. But it is also being used for the creation of derivative products, such as stock index funds (see Chapter 13). An increasing number of companies are running funds designed to track the world indices or one or more of their sub-series.

Data on the equity markets in the 48 individual countries that make up the global equity index series are available on ft.com – see Figure 9.5.

FT.com Data available at www.ft.com/marketsdata

FTSE GLOBAL EQUITY INDEX SERIES — Country indices

Jul 08 Countries	No of stocks	US $ index	Day %	Mth %	YTD %	Total retn	YTD %	Gross Div Yield
Argentina	17	639.05	0.5	3.7	21.5	649.68	22.7	1.8
Australia	255	376.44	0.2	-3.2	-0.2	416.19	1.9	3.8
Austria	22	539.33	0.5	2.9	4.5	567.00	6.1	1.5
Belgium/Lux	47	362.88	0.4	-1.1	-5.7	405.80	-2.6	3.3
Brazil	90	599.26	1.9	5.0	8.4	686.24	11.7	5.5
Canada	233	405.00	1.6	7.2	8.5	423.52	9.4	1.7
Chile	37	456.76	0.5	3.3	4.1	490.09	6.9	4.0
China	164	364.80	-1.0	0.3	-0.3	395.40	2.2	2.8
Colombia	10	889.30	1.1	12.7	23.7	1009.45	26.2	2.6
Czech Republic	6	657.84	1.0	2.4	11.6	763.22	13.2	2.7
Denmark	35	416.37	1.2	1.8	6.9	447.33	9.2	2.1
Egypt	15	1353.85	0.0	15.7	93.8	1471.84	97.5	1.4
Finland	42	266.02	1.6	0.1	4.8	292.29	8.2	2.8
France	126	325.97	1.7	0.3	-0.1	350.52	2.2	2.4
Germany	136	342.48	1.4	-1.7	-6.6	367.46	-4.2	2.4
Greece	59	428.86	1.1	-2.5	-2.1	471.21	0.4	2.9
Hong Kong	228	332.71	-0.4	1.0	0.3	362.10	2.1	2.9
Hungary	11	560.72	0.5	7.8	14.4	594.55	17.2	2.2
India	190	502.28	1.1	4.3	8.0	532.85	8.9	1.6
Indonesia	36	499.94	-0.1	-0.4	6.7	558.33	8.1	3.0
Ireland	25	372.35	0.5	0.2	-9.0	399.00	-7.6	2.4
Israel	62	354.55	0.2	-9.5	-1.6	374.59	-0.2	2.4
Italy	129	331.98	1.5	-1.5	-6.0	366.22	-2.8	3.3
Japan	1323	297.28	-0.4	-2.4	-6.0	305.84	-5.4	1.1

Countries	No of stocks	US $ index	Day %	Mth %	YTD %	Total retn	YTD %	Gross Div Yield
Malaysia	145	267.73	-0.5	2.1	-3.8	285.82	-2.3	2.7
Mexico	41	454.72	0.7	7.4	10.2	480.37	11.9	1.7
Morocco	8	355.69	0.0	-1.9	-9.2	391.27	-3.8	5.0
Netherlands	69	283.40	1.0	2.1	0.5	313.82	3.2	3.6
New Zealand	39	364.59	-0.1	-1.1	-5.2	405.92	-2.9	4.6
Norway	45	505.64	3.0	8.6	14.9	562.23	19.1	3.3
Pakistan	17	354.50	0.0	4.0	19.3	433.12	22.3	6.6
Peru	5	356.96	1.8	6.7	7.0	383.56	9.1	2.3
Philippines	17	394.89	1.4	-7.7	5.1	415.51	7.0	2.0
Poland	26	409.06	1.9	2.4	-3.8	431.62	-1.9	2.0
Portugal	17	291.18	0.4	-2.0	-15.2	322.52	-12.4	3.7
Russia	11	401.11	2.0	12.8	17.9	426.79	19.8	1.4
Singapore	110	335.47	0.0	-0.6	3.7	360.02	5.3	2.7
South Africa	117	389.12	-0.2	0.1	-10.0	425.34	-8.3	2.9
South Korea	209	368.32	-0.5	0.0	10.4	391.96	12.7	2.2
Spain	69	379.74	1.4	0.2	-3.9	410.54	-2.0	3.0
Sweden	87	406.34	1.0	-1.3	-5.4	444.71	-2.6	2.8
Switzerland	118	292.82	0.5	-3.0	-3.0	308.88	-1.2	1.8
Taiwan	380	295.46	-0.3	-1.9	-0.3	314.31	1.0	3.5
Thailand	78	378.80	0.1	-9.4	-11.5	417.94	-9.0	3.9
Turkey	49	659.33	1.2	8.8	9.7	707.06	13.0	2.8
UK	476	297.08	1.2	-1.4	-1.9	324.63	0.1	3.1
USA	2402	287.19	1.2	2.3	1.2	299.66	2.1	1.7

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Fig. 9.5 Country indices

International equity investing

Direct investing in international equities is an increasingly attractive proposition. The widespread deregulation of financial markets has made dealing in shares across national boundaries much easier. Nowadays, it is quite possible to get a stake in industries that do not exist at home and in economies with more favourable growth prospects or at different stages of the business cycle. International investments are also likely to afford

superior returns to those available in a single market, especially if they encompass some of the emerging markets of the newly industrialising world. There are greater risks associated with such returns, but the range of choice in the global equity market offers strong potential for diversification.

At the level of the individual company, there are frequently problems in comparing the relative merits of companies across markets. It is important to remember that financial reporting and accounting standards vary, and that indicators such as price/earnings ratios are often unreliable for international comparisons. Countries employ a variety of accounting conventions in their treatment of corporate profits. There are also differences in dealing and settlement arrangements, in rules on the size of investments, and in provisions for the custody and transfer of share certificates.

There is also the danger of adverse currency fluctuations: foreign exchange risk is likely to be the biggest threat to overseas transactions. Linkages between world equity markets can also affect the performance of an international portfolio. For example, with many major stocks traded in both London and New York, the two markets have become highly interdependent. Others might have a lower degree of correlation, if they respond in different ways to prevailing global economic conditions.

Another attractive area for the international equity investor is that of new issues. Buying shares the first time they are offered to the public, whether in privatisations of state-owned corporations or previously private companies coming to market, can be very profitable, perhaps especially for investors with relatively short investment horizons. In Europe, the new issue boom has partly arisen from the UK government's programme of privatisation, encouraging investors and issuers to enter the market, and other countries to launch their own selling agendas. Worldwide, it has been influenced by the weight of demand from investing institutions and the stress they place on quality control in new issues.

Important considerations with global issues include international differences in accounting practices and settlement arrangements; the identity and reputation of the sponsor; the language in which the prospectus is written; whether some issues are not available to non-residents; and the procedures for scaling down an application in the event of oversubscription.

Emerging markets

Both for multinational businesses and for private and institutional investors, the markets of the developing world are becoming more and more appealing. This is partly a response to such political developments as the collapse of communism and the increasingly global embrace of liberal democratic values, which may have reduced the sovereign or country risk of overseas investments. But naturally enough, economic forces also play a critical role: relatively lower labour costs are an attraction to multinationals to shift production to the developing world, as are the vast markets those workers represent for global brands such as Coca-Cola, Marlboro and McDonald's.

Despite a series of spectacular financial crises, the 1990s were years of dramatic growth for emerging markets. At the end of 1990, there were 8,920 companies listed

on emerging markets. At the end of 1999, that figure was 26,314, with combined market capitalisation of $3.07 trillion, 8.5 per cent of total world stock market capitalisation. The value of trading in 1999 was $2.8 trillion (9 per cent of the world total) compared with $31 trillion across all world markets.

In emerging markets, currency risks are likely to be compounded by political risks, the greater sensitivity of investors to the signs of impending devaluation or depreciation, and the impact of fundamental economic events elsewhere in the world. The "flight to quality" following the Mexican devaluation of early 1995 showed all of these in action: the arrival of a new government with untested macroeconomic policies, the dangers of current account deficits and limited reserves, and the increases in US interest rates making dollars relatively more appealing than pesos. The Asian and Russian crises of 1997/8 followed similar patterns.

“The management of stock exchange investments of any kind is a low pursuit from which it is a good thing for most members of our society to be free.”

John Maynard Keynes

“Put not your trust in money, but put your money in trust.”

Oliver Wendell Holmes

10

Trusts and funds

The managed money markets

- **The managed funds service** – reading the figures and using the information on authorised investment funds – unit trusts and OEICs (open-ended investment companies)
- **Investment companies**
- **Offshore and overseas** – opportunities for non-UK investors
- **US mutual funds**
- **Exchange-traded funds** (ETFs)
- **Hedge funds**

Managed funds are collective investment vehicles that are run by investment companies to provide professional management of investors' money. These funds in turn may be linked to other financial products. Managed funds are an easy way for small, private investors to get into share buying.

The managed funds service

The *Financial Times* managed funds service provides investors with information relating to a substantial number of managed funds. The information is provided by the individual management groups to a specific formula laid down for UK authorised bodies by the regulator. The address and telephone number of the group are normally given under its name, except in the case of those offshore funds that have not been authorised by the Financial Services Authority (FSA) to be promoted for general sale in the United Kingdom. This does not mean that they are in some way suspect; it merely signifies that the country in which they are based has not applied for designated territory status. This status is only given if the country's regulatory system is deemed to be at least equal to that ruling in the United Kingdom.

Monday's newspaper includes a supplement called FTfm with additional data and reports on the fund management industry, including fund ratings.

Authorised investment funds

Unit trusts and OEICs (open-ended investment companies) offer professional management of funds pooled together and divided into units whose value is based on the market valuation of the securities acquired by the fund. Hence the value of the units varies in accordance with the movement of the market prices of the securities owned by the fund. Authorised unit trusts are unit trusts that have been approved as being suitable for general promotion and sale in the United Kingdom.

The attraction of unit trusts is that they enable small investors to achieve the advantages available to large investors of cheaper dealing costs and a spread of investments to reduce risk. They can also be tailored to meet the particular needs of investors looking for capital growth or income, or to go into specific sectors and overseas markets. They are therefore also widely used by stockbrokers and fund management groups. Since capital gains tax on sales and purchases made within the fund does not have to be paid, unit trusts have the additional advantage of favourable tax treatment.

A unit trust is divided into equal portions called units. Their prices are calculated daily to reflect the actual market value of the assets of the trust. Under the deed creating the trust, unit trust management groups have an obligation to keep investors properly informed about movements in the value of these units. Instead of having to circulate information to each unit holder individually, it is accepted by the authorities that this obligation can be discharged by regular publication of the unit prices in certain national newspapers, in particular the *Financial Times* (see Figure 10.1):

MANAGED FUNDS SERVICE

	Init Chrge	Notes	Selling Price	Buying Price	+ or -	Yield
3A SA						(LUX)
Regulated						
ACE Multi Strategy USD (Final)			$1574.26	.....		–
ACE Multi Strategy EUR (Final)			€1071.16	.....		–
ACE Multi Strategy CHF			SFr1017.23	.....		–
Ace Multi Strategy CHF C			SFr942.8	.....		–
ACE Long/Short USD (Final)			$1131.11	.....		–
ACE Long/Short EUR			€946.38	.....		–
ACE Long/Short CHF			SFr941.15	.....		–
ACE Macro USD (Final)			$999.05	.....		–
ACE Multi Arbitrage USD (Final)			$1138.5	.....		–
ACE Multi Arbitrage EUR			€1071.96	.....		–
ACE Multi Arbitrage CHF (Final)			SFr1112.63	.....		–
7IM						(UK)
Beaufort House, 15 Botolph St, London, EC3A 7HH						
Authorised Inv Funds						
Order Desk: 08459 220044				Enquiries: 020 7556 8800		
Authorised Corporate Director – Capita Financial Managers						
Moderately Adventurous A Inc		4	116.59xd		+0.11	0.03
Moderately Adventurous A Acc		4	116.68xd		+0.11	–
Moderately Adventurous B Acc		4	117.02xd		+0.11	0.03
Moderately Adventurous C Inc		4	117.04xd		+0.11	0.01
Moderately Adventurous C Acc		4	117.43xd		+0.11	–
Moderately Adventurous D Inc		4	116.63xd		+0.11	–
Moderatley Adventurous D Acc		4	116.89xd		+0.11	–
Adventurous A Inc		4	113.95xd		+0.16	–
Adventurous A Acc		4	113.92xd		+0.16	–
Adventurous B Acc		4	114.39xd		+0.16	–
Adventurous C Inc		4	114.57xd		+0.16	–
Adventurous C Acc		4	114.71xd		+0.16	–
Adventurous D Inc		4	113.94xd		+0.16	–
Adventurous D Acc		4	114.02xd		+0.16	–
Balanced A Inc		4 C	113.23xd		+0.17	0.24
Balanced A Acc		4 C	113.97xd		+0.18	0.23
Balanced B Acc		4 C	114.34xd		+0.17	0.28
Balanced C Inc		4 C	113.67xd		+0.18	0.37
Balanced C Acc		4 C	114.77xd		+0.18	0.39
Balanced D Inc		4 C	113.33xd		+0.17	–
Balanced D Acc		4 C	114.15xd		+0.18	–
Moderately Cautious A Inc		4 C	108.85xd		+0.24	0.76
Moderately Cautious A Acc		4 C	110.50xd		+0.24	0.65
Moderately Cautious B Acc		4 C	110.90xd		+0.25	0.7
Moderately Cautious C Inc		4 C	109.80xd		+0.25	0.51
Moderately Cautious C Acc		4 C	111.19xd		+0.25	0.67
Moderately Cautious D Inc		4 C	108.91xd		+0.24	–
Moderately Cautious D Acc		4 C	110.60xd		+0.25	–
Cautious A Inc		4 C	105.08xd		+0.26	0.75
Cautious A Acc		4 C	106.80xd		+0.25	1.19
Cautious B Inc		4 C	107.28xd		+0.26	–
Cautious B Acc		4 C	107.26xd		+0.26	1:32
Cautious C Inc		4 C	105.59xd		+0.25	1.15
Cautious C Acc		4 C	107.45xd		+0.26	1.38
Cautious D Inc		4 C	105.24xd		+0.25	–
Cautious D Acc		4 C	106.89xd		+0.26	–
ABN AMRO Global Liquidity Funds Plc (u)						(IRL)
Styne Hse Upper Hatch St, Dublin 2				00 353 1 638 2460		
FSA Recognised						
Sterling			£1.0000	.....		4.51
Sterling Premium			£1216.2037		+0.14	0.00
Sterling Premium Plus		0	£1146.8312		+0.14	0.00
US Dollar (z)			$1.0000	.....		3.04
US Dollar Premium			$1108.4960		+0.08	0.00
US Dollar Premium Plus		0	$1050.2150		+0.09	0.00
Euro			€1.0000	.....		1.92
Euro Premium			€1138.2732		+0.05	0.00
Euro Premium Plus		0	€1085.1539		+0.06	0.00
ABN AMRO Investment Funds S.A						(LUX)
46 Avenue JF Kennedy L1855 Lux				+ 352 2607 3305 / 04		
FSA Recognised						
Balanced						
Model 1 F	5¼		€59.82		–0.02	–
Model 2 F	5¼		€55.27		–0.07	–
Model 3 F	5¼		€51.02		–0.11	–
Model 4 F	5¼		€45.16		–0.13	–
Model 5 F	5¼		€38.78		–0.15	–
Model 6 F	5¼		€32.66		–0.14	–
Equities						
Asian Tigers Equity A F	5¼	E	$58.04		+0.15	–
Behavioural Finance Japan A			Y4249.36		–17.24	–
Biotech A			€19.87		–0.06	–
China Equity A			$82.69		–0.42	–
Eastern Europe Equity A			€243.94		+2.99	–
Euro Equity A			€41.22		+0.18	–
Europe Equity A			€101.68		+0.65	–
Europe Equity Growth A			€24.52		+0.1	–
Germany Equity A			€137.87		+0.37	–
Global Emrg Mkts Eqty A			$71		+0.42	–
Global Equity A			$46.26		–0.09	–
Global Equity Value A F	5¼		€62.89		–0.32	–
Global Leader A EUR F	5¼		€42.93		–0.05	–

	Init Chrge	Notes	Selling Price	Buying Price	+ or -	Yield
ACM Offshore Funds - Contd.						
Income & Growth Portfolios						
Privanza Global Bal Cl A Jul 6			$11.68		–0.05	–
Privanza Global Bal Cl B Jul 6			$11.68		–0.05	–
Privanza Global Bal Cl C2 Jul 6			$13.77		–0.06	–
ACM Bernstein Value Investments						
American Value A Jul 6			$9.78		–0.08	–
American Value B Jul 6			$9.41		–0.09	–
American Value I Jul 6			$10.15		–0.09	–
European Value A Jul 6			€10.71		+0.01	–
European Value B Jul 6			€10.31		+0.02	–
European Value I Jul 6			€11.93		+0.01	–
Global Value A Jul 6			$12.43		–0.04	–
Global Value B Jul 6			$11.96		–0.03	–
Global Value I Jul 6			$12.77		–0.04	–
*Offer price depends on jurisdiction						
AGF International Advisors Company Ltd						(IRL)
Regulated						
Goldrings Gbl Health Sciences			$10.59		–0.08	–
Goldrings Gbl Technology			$6.52		.....	–
Goldrings Gbl Financial Servs			$15.18		–0.14	–
Goldrings Gbl Resources			$20.37		+0.09	–
Goldrings Gbl Multimanager			$12.47		–0.09	–
AIB Fund Management Ltd						(IRL)
AIB Trade Cntr,PO Box 5447,IFSC,Dublin 1				00 3531 8740222		
FSA Recognised						
AIB Investment Fund Umbrella Fund						
Cautiously Managed		5	£1.0047		.....	–
Managed Growth		5	£1.0293xd		.....	–
AIMS Management Limited						(IRL)
Regulated						
AIMS Low Volatility Euro			€131.75		.....	0.00
AIMS Medium Volatility US$			$118.08		.....	0.00
AIMS Low Volatility US$ Fd			$148.94		.....	0.00
AIMS Medium Volatility Euro			€113.09		.....	0.00
ARN Investment Partners Pte Ltd						
Other International Funds						
Newly Industrialised Economies			$21.44		.....	–
AXA Fund Managers Ltd (1400)F						(UK)
PO Box 365, Bristol BS99 5SN						
Admin & Enq: 0845 300 0479				IFA Dealing: 020 7003 1234		
Customer Dealing: 0845 300 3475						
Authorised Inv Funds						
MultiManager Unit Trusts						
Multimanager Growth		5	69.43xd		+0.38	0.29
Multimanager Global Opps		5	70.77xd		+0.31	0.00
Multimanager Income Inc		5 C	95.48xd		+0.46	2.98
Multimanager Income Acc		5 C	110.3xd		+0.60	2.98
Multimanager 2020		5	70.73xd		+0.31	0.00
AXA MultiManager Portfolios						
Multimanager Cautious Income Acc R		5 C	107.2xd		+0.1	4.59
Multimanager Cautious Income Inc R		5 C	102.4xd		+0.1	4.64
Multimanager Dynamic Acc R		5	114.7xd		+0.7	0.41
Multimanager Growth Acc B		5	147.4xd		+1	0.54
Multimanager Growth Inc R		5	109.4xd		+0.7	0.70
Multimanager Income Inc R		5	105.4xd		+0.7	3.06
Multimanager Income Inc B		5	127.1xd		+0.8	3.06
Multimanager Income Acc B		5	139.7xd		+1	3.04
AXA Unit Trusts						
Balanced Acc		6	95.61	101.4	–1.48	2.03
Balanced Inc		6	76.29	80.99	–1.18	2.03
General Acc		5	1069.0	1132.0	–25.30	2.02
General Inc		5	754.0	798.9	–17.80	2.02
AXA UK Investment Co Funds (OEICs)						
Distribution Acc A		5 C	116.4		–1.00	2.94
Distribution Inc A		5 C	97.64		–0.86	2.94
Distribution Acc B		5 C	114.0		–1.00	2.94
Distribution Inc B		5 C	95.94		–0.85	2.94
Ethical Acc A		5	98.53		–2.37	2.11
Ethical Acc B		5	95.06		–2.28	1.61
Extra Income Acc A		5 C	129.5		–0.80	4.99
Extra Income Acc A Gross		5 C	130.3		–0.80	4.99
Extra Income Inc A		5 C	98.34		–0.58	4.99
Extra Income Inc A Gross		5 C	98.56		–0.57	4.99
Extra Income Acc B		5 C	126.8		–0.70	4.99
Extra Income Inc B		5 C	96.11		–0.56	4.99
UK Corporate Bd Acc C		5	108.6		+0.50	3.00
UK Corporate Bd Inc C		5	104.3		+0.50	3.00
UK Corporate Bd Inc D		0	104.9		+0.50	4.40
UK Equity Income Acc A*		5 C	135.7		–3.10	3.83
UK Equity Income Inc A*		5 C	107.9		–2.50	3.83
UK Equity Income Acc B*		5 C	132.4		–3.00	3.83
UK Equity Income Inc B*		5 C	105.2		–2.40	3.83
UK Growth Acc A		5	91.94		–2.13	2.03
UK Growth Acc B		5	89.07		–2.06	1.53
UK Opportunities Acc A		5	109.1		–2.60	2.19
UK Opportunities Acc B		5	106.9		–2.50	1.69
UK Smaller Cos Acc		5	127.0		–1.80	1.77

Fig. 10.1 Managed funds service

Reading the figures

- **Name of the investment group, its pricing system and trust name:** each investment group is listed together with its component trusts, and the basis of its pricing system. The price regime for each group is measured at a certain cut-off point, the figure in brackets representing a time, and calculated on a forward (F) or historical (H) basis. The trust name will indicate what kind of assets the trust invests in.
- **Initial charge:** the second column indicates the percentage charge imposed on buyers of the fund by the manager to cover the "front load" costs of administration and marketing plus commission paid to intermediaries. The initial charge is included in the buying price of units. If the initial charge is 5 per cent, out of every £100 invested, £5 is retained by the management group to cover its costs, leaving the remaining £95 to be actually invested in the fund.
- **Notes:** the third column notes any special features of the trust. For example, the letter E denotes that there may be exit charges when units are sold, and the letter C indicates that there will be a periodic management charge, typically 1–1.5 per cent annually.
- **Selling price/buying price:** the fourth and fifth columns show the gap between the selling or bid price, at which units can be sold, and the buying or offer price, at which they can be bought. These are calculated by the group assessing the value of the underlying securities held at the most recent lowest market dealing price (plus other assets like uninvested income and undistributed income), adding the various costs involved such as dealing charges, and dividing the total by the number of units issued. The selling and buying prices for shares of an OEIC and units of a single-price unit trust are the same.
- **Price change:** the sixth column compares the mid-point between the selling and buying prices with the previous quotation. It may be unchanged, or show an upward or downward trend, according to changes in the value of the underlying securities or an alteration in the bid/offer spread.
- **Yield:** the last column indicates income paid by the unit trust as a percentage of the offer price. The quoted yield reflects income earned by the fund during the previous 12 months, and therefore only relates to past performance.
- **Risk, charges and performance rating:** Monday's newspaper has a different last column in the managed funds service. Instead of yield, it has data on RCP: risk, charges and performance. These are assessments made by FT Fund Ratings, more detail on which is available on ft.com and in FTfm. The risk rating is on a scale of 1, very low, to 5, very high, based on the volatility of the price of the fund. Ratings for charges and past performance are on a similar scale: 1 is very low charges and 5 very high charges; and 1 is very low past performance and 5 very high past performance.

Using the information

The information provided means that investors can calculate how much their unit trust holdings are worth, and how they are performing each day. Details of charges made by individual fund groups are also provided.

The spread is used by unit trust groups to collect the initial charge imposed to cover the expense of setting up and promoting the fund as well as recouping other costs. Under the formula laid down by the FSA, the spread for unit trusts can only be moved up and down within a limited scale. If there is a surplus of sellers, the spread tends to be based at the bottom end of the scale. Conversely, if there is an excess of buyers, the spread is raised to the upper end of the scale, enhancing the value of the fund. The spread also reflects the fact that there are spreads in the prices of the shares in which trusts invest: like all investors, they buy at offer prices and sell at bid prices.

It is important to be aware of a unit trust's pricing policy, whether "historic", based on the price set at the most recent valuation of its portfolio of assets, or "forward", based on the price to be set at the next valuation. In the latter case, investors can never be sure of the price of a purchase or sale in advance of its being carried out.

Unit trusts are open-ended in that within reason there is no limit to the number of units a given trust can issue. An investor who wants to sell his or her units back to the trust will cause the trust either to find other willing owners or to sell some of its assets to pay for the buyback.

The income received by unit trusts on their investments must be paid out to unit holders, but there is often a distinction between income and accumulation units. With the former, the investor receives the appropriate share of dividends earned by the trust as cash; with the latter, income is added to the value of each unit, that is, the income is reinvested. There are often separate listings for the prices of income and accumulation units, the latter being higher because of the reinvested income. Unit trusts with low or even nil yields are those concentrating on capital growth rather than providing income.

Unit trusts were originally conceived to offer a spread of investments across the market, but they are now often much more focused, specialising by asset type (mainly equities but also bonds and currencies) and by the countries and regions in which they are invested, by the size of companies and the kind of industries, and by whether they are primarily pursuing income, capital appreciation or a combination of the two. The relationship between risk and return in the chosen market is important to selection, as are the investor's own investment goals: income, capital growth or total return. Unit trusts should generally be seen as a long-term investment: they need time to recoup the dealing charges.

Ratings are only shown for funds that satisfy specified criteria. For example, they need to provide sufficient data and not be too young to have a significant performance record. Of course, it is important to recognise that the ratings are not recommendations to buy.

Investment companies

Investment companies or investment trusts exist to invest in the equity of other companies, and their business consists entirely of buying, selling and holding shares. Like unit trusts, they provide an accessible vehicle for small investors to achieve a wide spread of investments. Investment trusts differ from unit trusts, however, in the sense that they issue equity themselves, and hence their shareholders hold a direct stake in the profits of the trust rather than merely the profits of a unit of shareholdings. They are also closed-ended; there is a finite number of shares in issue. Their performance is listed in the *Financial Times* London share service (see Figure 10.2), which shows:

- **Prices and yields:** latest prices, price changes, highs and lows for the year and yield as in the standard share coverage.
- **Net asset value (NAV), discount or premium:** the NAV figure is the market value per share of the various securities in which the trust has invested, and therefore what, in theory, the trust might be worth if it were liquidated immediately. The discount (rarely is it a premium) is where the share price typically stands in relation to the NAV per share. The amount of the discount is calculated as a percentage of the NAV per share. These figures are of great importance to investors in making their buying and selling decisions.

The figures are supplied by a leading broker, BT Alex Brown, and are the result of a daily simulation of changes in portfolio values. Calculations of the discount are generally reliable but, in some cases, such as recent new issues with substantial uninvested cash or funds that have radically restructured their portfolios, the estimates may need to be treated with caution.

Investment trust shares traditionally sell at a discount to their underlying asset value. In the 1974 bear market, discounts were as wide as 45 per cent and although they have mainly narrowed, they add an additional uncertainty to investment trust share price prospects. In general, the more significant the discount from net asset values per share to share prices, the more tempting an investment trust will be as a takeover target.

Discounts are important but need to be interpreted with a fair degree of caution. For one thing, the basis on which NAVs are calculated is as "fully diluted". This means that they assume that if the company has warrants in issue with an exercise price that is lower than the NAV, those warrants will be exercised rather than expire worthless. This would dilute the assets available for the ordinary shares. Where an investment company has warrants in issue, the share price information gives details immediately following the information on the ordinary shares.

Investors should resist the temptation to assume that the discount represents the amount of value that would be released if the company were wound up. In practice, investors tend to get back less than this for two main reasons. First, the NAV quoted assumes any debt issued by the company that ranks ahead of the shares would be deducted at its par (nominal) value. In practice, the debt would have to be repaid at its

INVESTMENT COMPANIES

	Notes	Price	Chng	52 week high	52 week low	Yld	NAV	Dis or Pm(-)
3i	s	701½xd	+16	731	528	2.2	599.1	−17.1
AbnAsian	♣	239¾	+1½	**239¾**	159¾	1.3	235.4	−1.9
Wt		139½	+1¼	**139½**	78½	–	–	–
AbnDev	♣	50¼xd	+1	52¼	47¾	10.3	51.1	1.6
AbnGthVCT		49½	.....	49½	47	1.2	74.6	33.6
AbnGthOpsVCT		71¼	.....	72½	60	1.4	94.0	24.2
AbnNewDn	♣s	362½	+3½	**362½**	249½	1.1	375.0	3.3
AbnNewThai	♣	109	.....	122¾	91¾	1.3	122.0	10.6
Abforth Grd		112½	.....	119	102¼	7.5	–	–
Cap		262	+1	289	138¼	–	476.8	45.1
Abf Sml		566½	+3½	567	417¼	1.9	606.8	6.6
AbsoluteRetPf		103¼	.....	104¾	101¾	–	98.5	−4.8
ACM Euro		67¾	.....	73¼	61½	7.7	71.9	5.7
Acorn	♣s	140	.....	143½	113	5.7	152.1	8.0
ActiveCap	♣	106	.....	127¼	93¾	–	122.6	13.6
AdvDvpMk	♣	214½	+2¾	**214½**	144¼	–	237.8	9.8
AdvFcsPf	♣	110	.....	110½	99	–	110.9	0.8
Adv UK	♣	156¾	+2¼	**156¾**	120¾	1.3	172.1	8.9
AIM Dist	♣s	58	.....	59¾	51	–	69.3	16.3
AIM VCT	s	51½	.....	59½	49½	–	61.3	16.0
AIM VCT 2	s	75	.....	83	72½	–	89.0	15.7
Albany	♣	243½xd	+½	**243½**	188	3.3	283.5	14.1
Alliance	♣	2947	+34	**2947**	2371	2.4	3460.0	14.8
AlliDresI&G	♣†	55½	+¼	58¼	34½	11.8	67.0	17.1
ZDP		169½	+½	**169½**	155¾	–	167.0	−1.5
AlliDres2nd	♣	142	+¾	143¾	130½	–	157.6	9.9
2nd '09		102¼	+¼	**102¼**	89	–	127.6	19.9
AlliDres'10	♣	83	.....	84¼	71½	–	103.9	20.1
Alt Asts Rd P.		103	+½	106½	100	–	103.2	0.2
AIS Stg Hdg		113½	.....	115	113½	–	118.2	3.9
Altin $		£27 3/16	−11/32	£27 15/16	£23 13/32	–	2805.8	3.1
Am Opp	♣	104½	+1½	**104½**	84	–	118.1	11.5
Amerindo	♣	15¼	.....	17	12	–	19.0	19.7
Ang&Ovr	♣†	228½xd	+1¾	228½	172½	2.3	d256.8	11.0
Art AIM		88½	.....	97½	85	–	100.7	12.1
Art Aim VCT2		95	.....	106	95	–	95.3	0.3
Art Alpha		193	.....	217	123½	1.0	d175.4	−10.0
AssetMan		54¼	.....	65¼	45½	7.4	93.7	42.1
ZDP		180¾	.....	181¼	156¾	–	180.8	0.0
Atls Japan$		1220¼	−2½	1225½	932¼	–	1189.6	−2.6
Aurora	♣	189½xd	+½	219½	149½	1.5	207.4	8.7
BG Japan	♣	176¼	+1¾	**176¼**	143½	–	186.0	5.3
BG Shin	♣	167½	+1¼	**167½**	143	–	189.7	11.7
Bankers	♣F	297¼	+2¼	**297¼**	235	2.5	352.5	15.7
BrngEmEu	♣	410½	+10¼	**410½**	247½	0.5	444.7	7.7
Baronsmd	z	88½	.....	93½	81½	15.3	99.4	11.0
VCT 2	s	97½	.....	101	91	6.1	110.0	11.3
VCT 2 'C'		92½	.....	100	92½	1.1	95.8	3.4
VCT 3		97½	.....	98	89½	4.6	109.0	10.6
VCT 4		94	.....	94½	86½	3.5	105.5	10.9
BFSAsian		9xd	.....	10	6	11.1	–	–
Cap		0¼	.....	1½	0¼	–	–	–
Grd		9¼xd	.....	10	6	10.8	8.2	−13.2
Japan		70½	.....	70½	62	0.6	–	–
BFS Eq	t	0¼	.....	1	0¼	–	–	–
Cap	t	0¾	.....	2¼	0¾	–	–	–
Guerns		108	+½	**108**	76½	–	124.0	12.9
BFS Mngd ZDP		131¼	.....	131¾	107½	–	140.8	6.8
BFS UK DI	†	4¼	.....	4¾	3¾	44.8	–	–
ZDP		81	+½	81½	44	–	113.0	28.3
BFS US Sp	†	60¼	.....	60¼	38½	2.4	–	–
Cap		10¾	+½	15½	10	–	11.8	8.9
Uts		71	+¾	72	50	2.0	108.6	34.6
ZDP		150½	+¼	**150½**	131	–	142.9	−5.3
BGI End		158½	.....	158½	153½	–	160.6	1.3
II		85½	.....	85½	79¾	–	97.5	12.3
III		56	.....	58½	55	–	73.8	24.1
BSC C share		95½	.....	95½	95½	–	95.0	−.5
BioscnceVCT	♣	54	.....	85	54	0.9	82.9	34.9
BlueChp V&I	♣	17½xd	.....	19	10½	14.0	22.2	21.2
BlueChp Zdp.		142½	+¾	**142½**	103½	–	141.0	−1.0
Blue Plt E Fin	♣	75¾xd	+¼	79½	44	0.9	100.5	24.6
Blue Plt G&I Uts	♣	1060xd	.....	1220	865	2.1	d1627.9	34.9
Blue Plt WW	♣	79¾	+2	82½	56	2.9	109.5	27.2

Net asset value (NAV)

Closing price

Discount from NAV as a percentage

Price change and 52-week high and low

Yield

Fig. 10.2 London share service: investment companies

market value, which for many companies represents a significantly higher cost. Second, any winding up involves added charges, such as fees to advisers, the costs of cancelling the management contract and the costs of liquidating the portfolio. These are not reflected in the discount.

These two factors can have a substantial effect on the quoted discount. For the sector as a whole, it is estimated that debt accounts for 3 per cent of the assets while the winding-up costs could amount to another 3 per cent.

Compared with unit trusts, the commission charged on investment trusts is usually cheaper and the bid/offer spread narrower. But it is not possible to make minute comparisons of unit and investment trusts: the unit trust figures take account of the spread between buying and selling prices, while the investment trust figures take mid-prices in both cases. Comparisons thus flatter investment trusts. In addition, the narrowing of investment trust discounts makes them look better than unit trusts on longer-term comparisons.

Ten per cent of funds under investment trust management are in split capital trusts. These are companies with more than one class of share capital. The traditional variety is relatively simple: income shares get all the income, and capital shares get any capital growth over the life of the trust. Nowadays splits are highly complex, with several different types of security with differing rights and risks, and aiming to satisfy different investment needs. For example, at one extreme, zero dividend preference shares offer a low risk investment with a predetermined return; at the other, capital shares offer the potential for a high capital return at winding up but also the possibility that the shares will be valueless at the end of the trust's life. For zero dividend preference shares, discounts are meaningless because the shares have a predetermined return. The prices of "zeros" are primarily influenced by interest rates, which dictate how attractive that return is to capital-seeking investors, rather than the change in the company's net assets.

A daily table in the *Financial Times* provides data on split capital investment companies – see Figure 10.3.

Some but not all unit and investment trusts can be put into an individual savings account (ISA), which shields investors against both income and capital gains tax. ISAs are personal investment vehicles launched in the United Kingdom in 1999.

INVESTMENT COMPANIES: SPLIT CAPITAL INDICES

Share Class	Method	Aug 12	1 day % chg	1 mth % chg	1 yr % chg	3 yrs % chg	5 yrs % chg	No of stks
Capital	Capital Ret	269.70	0.09	6.97	76.05	138.93	36.60	20
Income	Capital Ret	26.80	0.04	2.74	21.40	12.44	-66.72	31
	Total Ret	81.19	0.05	4.05	37.83	70.22	-33.74	31
Ord Income	Capital Ret	34.95	0.25	2.85	29.36	21.66	-77.34	41
	Total Ret	78.62	0.25	3.88	41.26	77.44	-59.31	41
Zero Dividend	Capital Ret	150.43	0.04	1.55	19.61	81.71	14.83	49

Sources: www.funddata.com, www.aitc.co.uk. Start date 1 January 1997 = 100. All figures are in GBP. Indices are calculated daily on a capital return basis for all share classes. For share classes which receive income, total return indices are calculated and assume income received is reinvested on the ex-dividend date.
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Fig. 10.3 Investment companies: split capital indices

Offshore and overseas

Some funds operate like unit trusts or investment companies but are based in small, independent jurisdictions, often with a more liberal tax regime and lighter supervision than in the United Kingdom. Nevertheless, the funds are still effectively operating under the advice or management of groups offering authorised unit trusts in the United Kingdom. They are often located in the Channel Islands, the Isle of Man, Bermuda and the Cayman Islands, which offer low rates of tax and a high degree of privacy to companies and wealthy individuals. For the UK-based investor, there is virtually no tax advantage in investing in these funds, but there may well be for the expatriate or other overseas investor.

Offshore funds have various potential drawbacks. The charges are generally higher than their unit trust or investment company equivalents, but are often not clearly disclosed. The total annual cost of investing in an offshore fund can be up to four times higher than the quoted management fee. On average, the total cost of an offshore equities fund is almost one percentage point higher than the quoted fee. Investors also need to keep a careful eye on the safety of their assets when buying offshore. The level of investor protection may not match that of the United Kingdom. Investors should check whether the manager and the custodian firm (which has responsibility for looking after the assets) are regulated and whether they are covered by any compensation scheme.

US mutual funds

The US equivalent of the UK managed money market is the mutual fund industry. As with unit trusts and investment trusts, the money invested in a mutual fund is pooled to buy a range of stocks, bonds and/or other assets.

The *Financial Times* does not carry information on US mutual funds but they are well covered in *The Wall Street Journal*. The US newspaper covers both open-end funds for which the fund will sell as many shares as investors want (the equivalent of unit trusts) and closed-end funds for which there is only a limited number of shares (the equivalent of investment trusts). There is also a distinction between load funds, which charge a commission when bought and sold, and no-load funds, which only charge a management fee. The typical fund charges 0.75 per cent of an investor's assets.

The US mutual fund market has grown dramatically in the last 25 years. Some funds are simply cash substitutes known as money market funds (the UK equivalents are discussed in Chapter 1), which invest in very short-term interest-bearing securities. Next are bond funds, which own securities with average maturities exceeding 90 days. Lastly, there are equity funds, which invest across a range of different US and international stocks and shares.

Equity mutual funds have been one of the great success stories of the bull market that started in the early 1980s. Their professional management of large pools of capital appears to offer small individual investors some of the key advantages enjoyed by large

institutional investors: a spread of investments to reduce risk, and reduced dealing costs. Certainly, small investors who buy stocks directly have historically faced much higher trading costs because they could not match pooled funds' ability to negotiate lower commissions from brokers. Nor do such investors typically have the size of assets to achieve effective diversification.

The wide selection of mutual funds now available allows individual investors to get exposure to many more asset classes, geographical markets and investment styles than was possible in the past. But at the same time, because there are so many funds, it has become very difficult to choose between them. An entire industry has grown up to support the mutual fund business, providing information and apparently helping investors evaluate funds. Fund consumers in the United States – and increasingly elsewhere – now have access to enormous amounts of data about their investments.

Fund rating is usually done on the basis of past performance, past volatility and expenses (though some rating agencies try to be more forward-looking and offer explicit recommendations). Morningstar, for example, which rates all mutual funds, awards between one and five stars based on a mechanical formula. These stars are not recommendations, but they are naturally used as marketing tools, and floods of money go into funds that have five stars on the assumption that those that have done well in the past will continue to do so in the future.

Exchange-traded funds

April 2000 saw the first UK appearance of an investment product that bears many similarities to index-tracking investment funds: the exchange-traded fund or ETF. The first ETF product to be listed and traded on the London Stock Exchange was from Barclays Global Investors, the world's biggest index fund manager: the iFTSE 100 tracks the FTSE 100. ETFs are now covered in the London share service (see Figure 10.4) and as with regular shares, the daily table gives details of a fund's price, price change, 12-month high and

EXCHANGE TRADED FUNDS

	Notes	Price	Chng	52 week high	52 week low	Yld	P/E	Vol '000s
iShsEurStx50		2182xd	−22	2204	1736	2.0	–	4,245
Stx50		2098xd	+13	**2098**	1691	2.3	–	0
DJEuroMid.		2310	−10	2320	1913	0.3	–	0
iBoxx £		£143 33/32	+7/16	£144 1/4	£133 7/16	5.0	–	12
iFTSE100.†		519 1/2xd	−6 1/2	526	431 1/2	2.8	–	18,737
iFTSE 250..		738 1/2	−13	751 1/2	585 1/2	1.8	–	777
iFTSE/Xinh z		3163	−33	3196	2680	1.0	–	46
DJESmallCap z		1468	+2	1470	1229 1/2	0.1	–	3
Eurofst 80..		663	−9	672	533	1.7	–	90
Eurofst100.		1694	−15	1709	1382	2.2	–	0
S&P500.....		683	−5	689	581	1.3	–	171
iboxx €		£88 3/8	+23/32	£90 3/16	£80 1/16	4.2	–	1
GS $ Inv $...z		£64 23/32xd	+1 15/16	**£64** 23/32	£55 15/32	2.3	–	1
iShrs MSCI Jaz		569xd	−6	579	516 1/2	0.6	–	112

Fig. 10.4 Exchange-traded funds

low, volume, yield and p/e ratio, plus on Mondays, weekly price change, dividend, cover, market capitalisation, last ex-dividend date and Cityline code.

ETFs were introduced in 1993 in the United States, where there is now over $250 billion invested in them and where they seem to be very attractive to private investors. While tracking an index clearly helps investors of all kinds to spread risk and gain exposure to a wide variety of companies, it can be both difficult and expensive for private investors to do on their own. ETFs make the whole process simpler and cheaper. Well-known US ETFs include "spiders" (Standard & Poor's Depositary Receipts), which represent the S&P 500 index, "diamonds", which represent the Dow Jones Industrial Average (ticker symbol "DIA") and "qubes", which represent the Nasdaq 100 ("QQQ").

What makes ETFs appealing is that they are neither unit trusts (mutual funds) nor investment trusts and they eliminate the main drawbacks of the two most common vehicles for passive index investing. Open-ended funds have two drawbacks: a fund's net asset value is quoted and so investors can buy or sell only once a day; and investors who do not sell may incur capital gains tax if redemptions force the fund manager to sell some shares. Closed-end funds are priced continuously but temporary mismatches of demand and supply can lead to hefty discounts to the trust's net asset value.

Shares in each ETF can be bought and sold via a broker like any other equity. Once issued, the price moves up and down in line with the target index. The key benefits are that they offer diversification by allowing an investor to get exposure to a basket of securities in a single trade; ease of access; and efficiency of pricing because they are open-ended.

ETFs are traded continuously. They can be bought on margin or sold short, which allows more sophisticated trading strategies. Trades can also be settled using the underlying shares rather than cash, which should prevent discounts to the fund's net asset value and cuts down on taxable capital gains.

Hedge funds

The *Financial Times* managed funds service also includes a table of new indices of the performance of hedge funds (see Figure 10.5).

Hedge funds are a diverse grouping of asset managers pursuing a variety of investment strategies. Their name originally comes from the fact that, unlike most institutional investors, they were able to deal in derivatives and short-selling – in theory, to protect or "hedge" their positions. But having begun as a way of minimising risk, the conservative activity of hedging has become the least important of their pursuits.

The FTSE International index of hedge funds breaks out into three main types of hedge fund:

- **Directional:** these "macro" funds indulge in "tactical trading", one-way speculation on the future direction of currencies, commodities, equities, bonds, derivatives or other assets.

For more information on funds and fund performance, go to www.ft.com/funds

HEDGE FUND INDICES

FTSE
THE INDEX COMPANY

Aug 16	Indicative value	Day's chg %	MTD chg %	Last mth's net
FTSE Hedge $ Index	5046.50	0.01	0.43	5008.76
FTSE Directional	3009.07	-0.04	0.38	2989.98
FTSE Equity Hedge	2100.53	0.03	0.89	2073.06
FTSE CTA/Managed Futures	1942.13	0.09	-0.87	1996.95
FTSE Global Macro	1815.20	-0.39	-0.60	1800.23
FTSE Non-Directional	2982.72	0.12	0.43	2955.10
FTSE Equity Arbitrage	1980.40	0.11	0.25	1968.75
FTSE Fixed Income Relative Value	2017.33	-0.01	0.89	1994.39
FTSE Convertible Arbitrage	1932.68	0.30	-0.10	1912.51
FTSE Event Driven	3117.93	-0.03	0.52	3095.01
FTSE Merger Arbitrage	2031.66	-0.03	0.02	2015.23
FTSE Distressed & Opportunities	2119.56	-0.04	0.91	2105.38

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Fig. 10.5 Hedge fund indices

- **Non-directional:** these "market-neutral" or "relative-value" funds are supposedly lower-risk than directional funds because they do not depend on the direction of market movements. Instead, they try to exploit transitory pricing anomalies, regardless of whether markets rise or fall, for example, through an arbitrage technique called "convergence trading": spotting apparently unjustified differences in prices of assets with similar risks and betting that the prices will revert to their normal relationship. They might also use "long–short" strategies, which combine equities and/or bonds in long and short positions to reduce market exposure and isolate the performance of the fund from the asset class as a whole.
- **Event-driven:** these funds invest in the arbitrage opportunities created by actual or anticipated corporate events, such as mergers, reorganisations, share buybacks and bankruptcies. Merger arbitrage, for example, involves trading in the shares of both bidder and target on the assumption that their prices will converge if the deal goes ahead.

“I used to think that if there was reincarnation, I wanted to come back as the president or the pope. But now I want to be the bond market: you can intimidate everybody.”

James Carville, adviser to Bill Clinton

“Driving a car involves a foot on the gas, hands on the wheel, and eyes on the road. Navigating on the bond market requires a foot on interest rates, a handle on the prospects of being repaid, and an eye on inflation.”

Steven Mintz

11

Bonds and gilts

The international capital markets

- **Government bonds** – the UK gilt market: UK gilts prices; fixed-interest indices; benchmark government bonds
- **Corporate bonds** – fixed-income securities from non-sovereign debtors: new international bond issues; global investment grade bonds and bond indices; bond and equity market volatility

Bonds are debt instruments, securities sold by governments, companies and banks in order to raise capital. They normally carry a fixed rate of interest, known as the coupon, have a fixed redemption value, the par value, and are repaid after a fixed period, the maturity. Some carry little or no interest (deep discount and zero coupon bonds), rewarding the buyer instead with a substantial discount from their redemption value and, hence, the prospect of a capital gain.

As seen in Chapter 1, the prices of bonds fluctuate in relation to the interest rate. The secondary market for bonds provides the liquidity necessary for a thriving primary market. This now exists not only for government bonds, but also on an international scale for all kinds of debt instruments.

National boundaries are no longer an obstruction to lenders and borrowers meeting in a market to buy and sell securities. It is possible for borrowers in one country to issue securities denominated in the currency of another, and for these to be sold to investors in a third country. Often, such transactions will be organised by financial institutions located in yet another country, usually one of the three primary centres of these international capital markets – London, New York and Tokyo.

The Capital Markets & Commodities page of the *Financial Times* keeps track of developments in these markets and other areas that involve the raising of capital across borders. These include the growing markets in derivative products (such as futures, options, and interest rate and currency swaps) and in cross-border new equity issues. The newspaper also tracks developments in important government bond markets such as the US Treasury bond market and, of course, the market in UK government bonds, known as gilt-edged stock or gilts.

From Tuesday to Saturday, daily reports cover the international bond markets, including government and corporate bonds. Like the international equity markets, these markets are not compartmentalised. In the interdependent world of international finance, developments in one market will often influence many others. For example, a sharp rally in gilts is likely to prompt a similar rally in corporate bonds denominated in sterling, which may in turn encourage borrowers to launch new issues.

Government bonds

As discussed in Chapter 4, the government of a country finances many of its activities through borrowing from lenders by issuing bonds. In the United Kingdom, government bonds are known as gilt-edged securities and they trade in a secondary market run by leading marketmakers.

UK gilts prices

Price information on the UK government bond market is published daily in the *Financial Times* under the heading UK gilts – cash market. More detailed information is available on ft.com and in Saturday's newspaper, where gilts are classified under four headings

based on their time to redemption: "shorts" with lives up to five years, "medium-dated" with lives from five to 15 years, "longs" with lives of over 15 years, and undated, irredeemable stocks like Consols and War Loan. The classifications reflect the current life of the stock rather than the life when it was issued, and so stocks get reclassified as their date of maturity draws closer. There is also a fifth category, index-linked gilts, the yields of which are tied to the rate of inflation.

The gilt market is moved by economic and financial news, notably the movements of interest rates and inflation. The key to understanding it is that as interest rates go up, bond prices go down, making the coupon an effective rate of interest. Since high rates may be used to support a weak currency, a weakness in the currency may signal future increases in the interest rate, and a damaging effect on gilt prices. Similarly, prospects of inflation may lead to rate increases and bond price falls. Inflation also erodes the value of bonds since their prices and yields, unless index-linked, do not keep pace with rising prices generally. Hence, it is important for investors in bonds to look for changes in expectations about the future rates of interest and inflation. Other price determinants include the degree of risk (credit risk in the case of companies), the opportunity cost of other potential investments, the exchange rate and the time value of the bonds.

The market for gilts is run by primary dealers, the gilt-edged marketmakers (GEMMs) who have an obligation to maintain a market and a right to deal directly with the Bank of England. Transactions are for immediate or cash settlement, hence cash market as opposed to futures market. Institutional investors generally deal directly with the primary dealers. Figure 11.1 shows the most detailed *Financial Times* table of UK gilts prices, which appears on Saturdays:

- **Stock name and coupon:** the name given to a gilt is not important except as a means of differentiating it from others. The coupon, however, indicates how much nominal yield the owner is entitled to receive annually. Most gilts are issued in units of £100 (their par value), and so the percentage is equivalent to the number of pounds the owner receives. The coupon is a good indication of the interest rates the government was obliged to pay at the time of issue, and of the broad movements in the rate over the years.
- **Redemption date:** the year of redemption by the government, the specific date on which repayment of the loan will take place. If there are two dates, there is no specific date for repayment, but the stock will not be redeemed before the first one, and must be by the second one.
- **Price, price change, weekly percentage price change** and **52 week high** and **low points:** the price is the middle price between the buying and selling price quoted by marketmakers for a nominal £100 of stock. Each gilt has this par value, and moves of a point mean that it has risen or fallen by £1 in price. Like a share, gilts can be "ex-dividend" (xd), which means a buyer is not entitled to receive the latest coupon.
- **Redemption yield:** this figure indicates the total return to be secured by holding on to a stock until it is finally redeemed by the government. It thus includes the capital gains or losses made at redemption as well as the income from the coupon. If the

Stock name and coupon

Redemption date

Redemption yield

Closing price

Price change

Price high and low for the past 12 months

UK GILTS - cash market

www.ft.com/gilts

Jun 10	Notes	Price £	Chng	Wk % Chng	Yld Red	... 52 week ... High	Low
Shorts'' (Lives up to Five Years)							
Ex $10\frac{1}{2}$pc '05	✠	101.48	–.17	–.1	4.84	106.75	**101.48**
Tr $8\frac{1}{2}$pc '05		101.88	–.14	–.1	4.52	105.52	**101.88**
Tr $7\frac{3}{4}$pc '06		104.09	–.15	–.1	4.31	105.94	**104.09**
Cn $9\frac{3}{4}$pc '06	✠	107.53	–.19	–.1	4.23	110.60	**107.53**
Tr $7\frac{1}{2}$pc '06		104.59	–.16	–.1	4.27	106.05	104.41
Tr $4\frac{1}{2}$pc '07		100.43	–.10	–.1	4.24	100.53	98.28
Tr $8\frac{1}{2}$pc '07		108.49	–.19	–.1	4.21	110.10	108.08
Tr $7\frac{1}{4}$pc '07		107.09	–.18	–.1	4.21	107.90	106.12
Tr 5pc '08		102.07	–.12	–.1	4.19	102.20	99.27
Tr $5\frac{1}{2}$pc '08–12		103.55	–.16	–.1	4.31	103.72	100.54
Tr 9pc '08	✠	114.55	–.24	–.1	4.27	115.75	113.27
Tr 4pc '09		99.37	–.11	–.1	4.18	99.53	94.87
Tr 8pc '09	✠	114.67	–.21	–.1	4.22	115.26	112.52
Tr $5\frac{1}{4}$pc '09		106.28	–.16	–.1	4.20	106.49	102.40
Tr $4\frac{3}{4}$pc '10		102.46	–.14	–.1	4.20	102.67	99.49

	Notes	Price £	Chng	Wk % Chng	Yld Red	... 52 week ... High	Low
Five to Ten Years							
Tr $6\frac{1}{4}$pc '10		109.91	–.19	–.1	4.20	110.16	105.42
Cn 9pc Ln '11		125.43	–.24	–.1	4.21	125.83	121.86
Tr $7\frac{3}{4}$pc '12–15		119.06	–.17	.....	4.40	119.37	114.11
Tr 5pc '12		104.53	–.13	.....	4.22	104.80	98.36
Tr 9pc '12	✠	128.77	–.22	.....	4.28	129.13	124.11
Tr 8pc '13		126.09	–.21	.....	4.23	126.47	119.97
Tr 5pc '14		105.72	–.16	.....	4.24	106.06	98.12
Tr $4\frac{3}{4}$pc '15		104.12	–.14	.....	4.25	104.46	95.96
Ten to Fifteen Years							
Tr 8pc '15		131.59	–.21	.....	4.24	132.01	123.91
Tr $8\frac{3}{4}$pc '17		142.33	–.23	.....	4.26	142.82	133.54
Ex 12pc '13–17	✠	154.76xd	–.32	–.1	4.25	155.23	149.74
Over Fifteen Years							
Tr 8pc '21		142.84	+.01	0.2	4.27	143.34	132.46
Tr 5pc '25		109.80	+.14	0.3	4.26	110.20	99.61
Tr 6pc '28		126.04	+.26	0.4	4.24	126.48	114.60
Tr $4\frac{1}{4}$pc '32		100.35xd	+.32	0.5	4.23	100.71	90.07
Tr $4\frac{1}{4}$pc '36		100.46	+.39	0.5	4.22	100.84	90.17
Tr $4\frac{3}{4}$pc '38		109.59	+.46	0.6	4.21	110.00	98.50

	Notes	Price £	Chng	Wk % Chng	Yld Red	... 52 week ... High	Low
Undated							
Cons 4pc	✠	86.52	+.34	0.7	–	86.98	76.06
War Ln $3\frac{1}{2}$pc		81.91	+.35	0.7	–	82.38	71.30
Cn $3\frac{1}{2}$pc '61 Aft	✠	83.47	+.37	0.7	–	83.96	72.48
Tr 3pc '66 Aft	✠	67.05	+.24	0.8	–	67.43	58.70
Cons $2\frac{1}{2}$pc	✠	57.55	+.20	1.0	–	57.89	50.19
Tr $2\frac{1}{2}$pc	✠	57.15	+.20	1.0	–	57.48	50.08

	Notes	Price £	Chng	Wk % Chng	... Yield ... (1)	(2)	... 52 week ... High	Low
Index–Linked	**(b)**							
2pc '06	(69.5)	271.92	+.03	0.1	0.95	1.88	271.93	264.07
$2\frac{1}{2}$pc '09	(78.8)	247.73	–.02	0.2	1.32	1.59	247.86	235.82
$2\frac{1}{2}$pc '11	(74.6)	265.86	–.03	0.4	1.45	1.63	266.01	250.02
$2\frac{1}{2}$pc '13	(89.2)	225.80	–.04	0.4	1.48	1.61	225.93	210.56
$2\frac{1}{2}$pc '16	(81.6)	251.85	+.02	0.6	1.50	1.61	251.98	232.89
$2\frac{1}{2}$pc '20	(83.0)	254.91	+.08	0.9	1.50	1.58	254.91	233.62
$2\frac{1}{2}$pc '24	(97.7)	224.35	+.01	1.1	1.46	1.52	**224.35**	204.00
$4\frac{1}{8}$pc '30	(135.1)	218.05	+.25	1.5	1.39	1.45	**218.05**	198.09
2pc '35	(173.6)	124.17	+.26	2.1	1.37	1.41	**124.17**	110.01

Prospective real redemption rate on projected inflation of (1) 5% and (2) 3%. (b) Figures in parentheses show RPI base for indexing (ie 8 months prior to issue) and have been adjusted to reflect rebasing of RPI to 100 in January 1987. Conversion factor 3.945. RPI for Aug 2004: 187.4 and for Apr 2005: 191.6.

All UK Gilts are tax-free to non-residents on application. xd Ex dividend. Closing mid-prices are shown in pounds per £100 nominal of stock. Int yield: Interest yield. Red yield: Gross redemption yield. Prospective real Index-Linked redemption yields are calculated by HSBC Bank plc from Gemma closing prices. ✠ Indicative price. Gilts benchmarks and most liquid stocks, are shown in bold type. The full list of Gilts can be found daily on ft.com/bonds&rates.

Source: Debt Management Office (DMO).

Fig. 11.1 UK gilts

current price is below £100, the redemption yield will be bigger than the interest yield since, assuming the bond is held to redemption, there will also be a capital gain. More usually, gilts trade at a price greater than their repayment value and thus the redemption yield is lower than the interest yield. A new investor who intends to hang on to the bond until redemption would thus be locking in a capital loss.

- **Index-linked gilts:** with these bonds, the interest and redemption value are adjusted to account for movement in the retail prices index with a time lag of eight months. In this way, they maintain their real value, and hedge their owners against inflation. The price of the hedge is the lower nominal coupon rate compared to that earned by non-index-linked gilts. The yield columns of the table give two possible redemption yields, one based on the assumption of 5 per cent inflation, the other on the assumption of 3 per cent inflation. The table also indicates the base date for the indexation calculation.

On Tuesday to Friday, the newspaper has a variation on the listing for UK gilts, indicating the changes in yield on the previous day, week, month and year plus the total amount of the stock in issue in millions of pounds (a fixed sum since the stock is guaranteed by the government to be redeemed at that amount, the bond equivalent of market capitalisation). Monday's newspaper lists the dates on which the interest is paid (twice yearly) and the last ex-dividend payment of interest. The amount in issue is a good indication of the liquidity of the market: the bigger the amount, the easier the gilt will be to buy and sell.

The market price of a gilt reflects its redemption value, coupon and other rates. It is not directly determined by its redemption value until the redemption date gets closer. As a gilt approaches redemption, its price will get closer and closer to £100, the amount for which it will be redeemed.

Long-dated gilt prices move most in response to expectations of interest rate changes. Since their maturity value is fixed, they are a good indicator of expected trends in the rate of interest and the rate of inflation. As explained in Chapter 1, investors expect higher rates of return for longer-term investments. If short-term rates become higher than long-term rates, investors will move out of long-term assets. Thus, short- and long-term rates tend to move together. The yield curve is a means of comparing rates on bonds of different maturities, as well as giving an indication of the tightness of monetary conditions. Longer-term yields are usually higher because of the greater degree of risk (time and inflation risk). When short-term rates are higher, there is a negative or inverted yield curve, conventionally a sign of impending recession.

Redemption yields only apply to a new buyer. The yields for investors already in possession will depend on the price they paid. But, in both cases, the yields can be calculated exactly, in contrast with equities where both the dividend and capital gain or loss are uncertain. This reflects the greater degree of risk associated with investment in equities.

The investor will want to compare bond and equity yields. The yield gap (long-term bond yields minus the dividend yield on shares) is a good indicator of the relative rates, although at times, due to fears of inflation and the opportunities for capital gains on shares, there is a reverse yield gap. Another indicator (carried in Saturday's Money watch table, Figure 1.3 in Chapter 1) is the yield ratio, the long gilt yield divided by the equity dividend yield.

Index-linked bonds pay investors a known rate of interest independent of the inflation rate: both the coupon and the redemption payment are revalued in line with inflation. Index-linked bonds are valuable when inflation is feared; they are not so good when the real rates of return on gilts are high, that is, when nominal yields are above the rate of inflation. The difference between the long bond yield and the real yield on index-linked bonds is an indicator of expected inflation.

Private investors are becoming increasingly interested in bonds and gilts as investments. Banks recognise this and are actively promoting this group; Saturday's newspaper now regularly features advertisements and brochures for bond issues clearly directed at the private investor. It also includes a table examining gilt issues in terms of the best value for investors in different tax brackets (see Figure 11.2). The table takes four different levels of tax status and lists the best yielding gilts in each of five categories, providing the stock names and their current prices, yields and volatility. The basic principle behind the table is that since interest on gilts is taxed but capital gains are not, the higher the proportion of total return that is capital gains, the better for higher-rate taxpayers.

In 1997, the UK government began issuing a new type of gilt-edged security called a strip. These are created when a conventional bond is broken down into its constituent parts, which can then be held or traded separately. A normal 10-year bond, for example, pays a coupon twice a year for 10 years and a final large principal repayment at the end of the 10 years. Under the new arrangements, a bond can be stripped to make 21 separate instruments: 20 strips based on the coupons, which mature after six months, a year, 18

Gilt issues best value v tax status

	Stock	Price	Yield %	Real yield %	Modified duration
Non-Taxpayers					
Conventional 1-5 years	Treasury 7.75 2006	104.13	4.14		1.11
Conventional 5-15 years	Treasury 4.75 2020	105.94	4.20		10.52
Conventional >15 years	Treasury 8.0 2021	143.65	4.21		10.17
Index Linked 1-5 years	Treasury I/L 2.0 2006	272.65		1.72	1.01
Index Linked >5 years	Treasury I/L 2.5 2011	267.68		1.52	5.58
10% Taxpayers					
Conventional 1-5 years	Treasury 4.0 2009	99.91	3.63		3.38
Conventional 5-15 years	Treasury 4.75 2020	105.94	3.75		10.86
Conventional >15 years	Treasury 4.25 2032	100.87	3.77		16.73
Index Linked 1-5 years	Treasury I/L 2.0 2006	272.65		1.52	1.01
Index Linked >5 years	Treasury I/L 2.5 2013	227.53		1.28	7.29
22% Taxpayers					
Conventional 1-5 years	Treasury 4.0 2009	99.91	3.15		3.42
Conventional 5-15 years	Treasury 4.75 2020	105.94	3.19		11.28
Conventional >15 years	Treasury 4.25 2032	100.87	3.27		17.73
Index Linked 1-5 years	Treasury I/L 2.0 2006	272.65		1.29	1.02
Index Linked >5 years	Treasury I/L 2.5 2013	227.53		1.00	7.38
40% Taxpayers					
Conventional 1-5 years	Treasury 4.0 2009	99.91	2.43		3.48
Conventional 5-15 years	Treasury 4.75 2020	105.94	2.37		11.97
Conventional >15 years	Treasury 4.25 2036	100.95	2.51		21.08
Index Linked 1-5 years	Treasury I/L 2.0 2006	272.65		0.93	1.02
Index Linked >5 years	Treasury I/L 2.0 2035	126.20		0.61	24.83

Best performing bonds are selected on highest yield for each marginal tax rate based on closing mid price. Gilts exclude double-dated and rump issues. Prices quoted as £ per £100 nominal. For inflation-linked gilts: Real yields assume projected inflation at 3%. Money yields assume projected inflation equal to current year-on-year inflation.

Source: Barclays Capital

Fig. 11.2 Gilt issues: best value versus tax status

FT.com Data available at www.ft.com/marketsdata

Gilt strips

	Price	Aug 23 Yield	Wk ago yield	Mth ago yield
7.25% '07	90.97	4.18	4.22	4.13
8% '15	65.05	4.22	4.27	4.30
8% '21	51.04	4.29	4.33	4.36

Source: DMO. See www.dmo.gov.uk

Fig. 11.3 Gilt strips

months, two years and so on; and one strip based on the principal, which matures after 10 years.

The strips pay no interest but since they are zero coupon instruments, they are sold at a discount, offering the investor a capital gain when they mature at their face value. The idea is that because these offer investing institutions exactly the kind of maturity profile that they want, they might be willing to pay more for them. Other countries' experience is that strips tend to trade at a small premium compared with conventional bonds.

Price and yield data for three benchmark gilt strips are recorded daily on ft.com (see Figure 11.3).

A typical report on the market for gilts looks like this (basis points or bp are one hundredths of a percentage point – so 25 basis points equals 0.25 percentage points):

> UK gilt yields dipped after the Bank of England cut interest rates for the first time in two years. The yield on the two-year gilt fell 4bp to 4.18 per cent shortly after the Bank announced at lunchtime that it was reducing its base rate by 25 basis points to 4.5 per cent. The yield on the 10-year bond fell 1bp to 4.37 per cent. Reaction was muted because the decision was largely priced in. But the market could experience more volatility since opinions vary sharply about whether this cut was the start of a new cycle or simply a one-off move. (*Financial Times*, 5 August 2005)

This demonstrates some of the major influences on the gilt market: expectations of future movements of interest rates, which in turn are driven by Bank of England decisions based on its expectations of future inflation and economic growth. The possibility of slower growth (and probably weaker inflationary pressures) suggests the possibility of lower interest rates, which implies the prospect of falling bond yields and rising bond prices.

Exchange rates also play an important role in the bond market. What is more, given the extensive interconnections of global bond markets, the movements of interest rates and bond prices in the United States are likely to affect UK rates and prices in the same direction. For example, lower bond prices and higher yields in the United States than in

the United Kingdom might tempt international bond investors to move out of UK gilts and into US bonds, pushing down the prices of the former.

In fact, the two economies (and indeed the rest of the world) are linked even more fundamentally in the patterns of their economic growth and business cycles. For example, indications of resurgent economic growth suggest that there will be the future threat of inflationary pressures from a boom. Furthermore, since the rate of interest typically goes up in a time of economic buoyancy, bond prices tend to fall on the upswing of the business cycle.

Fixed-interest indices

As well as individual bond prices, the *Financial Times* provides indices for a broad range of UK fixed-interest instruments. The FTSE UK Gilts indices (see Figure 11.4) are designed to perform roughly the same service for professional investors in gilt-edged stocks as the corresponding FTSE equity indices have provided for investors in ordinary shares. They are

FTSE UK GILTS INDICES www.ft.com/ftsegiltindices

Price Indices UK Gilts	Tue Aug 9	Day's chge %	Month's chge %	Year's chge %	Total Return	Return 1 month	Return 1 year
1 Up to 5 years (11)	107.13	+0.00	-0.16	-0.37	1657.90	-0.16	+5.97
2 5-10 years (6)	159.88	-0.02	-0.89	+2.75	1839.76	-0.83	+8.44
3 10-15 years (4)	175.47	-0.03	-1.17	+3.41	1995.03	-1.17	+9.42
4 5-15 years (10)	164.20	-0.03	-1.02	+2.83	1882.08	-0.98	+8.75
5 Over 15 years (7)	221.78	-0.04	-1.88	+4.05	2119.27	-1.88	+9.21
6 Irredeemables (1)	336.22	-0.09	-3.00	+5.62	2663.86	-3.00	+10.37
7 All stocks (29)	153.70	-0.02	-1.01	+2.19	1854.26	-1.00	+7.99

Index-linked	Tue Aug 9	Day's chge %	Month's chge %	Year's chge %	Total Return	Return 1 month	Return 1 year
1 Up to 5 years (2)	261.75	+0.05	+0.00	+2.98	1610.95	+0.00	+5.59
2 Over 5 years (7)	306.47	+0.02	-1.61	+5.73	1943.94	-0.97	+8.21
3 5-15 years (4)	284.34	+0.02	-1.38	+5.45	1792.25	-0.74	+7.75
4 Over 15 years (3)	329.69	+0.01	-2.05	+6.18	2103.99	-1.40	+8.99
5 All stocks (9)	298.90	+0.02	-1.41	+5.33	1900.50	-0.85	+7.83

Yield indices	Aug 9	Aug 8	Yr ago
5 yrs	4.32	4.32	4.97
10 yrs	4.40	4.39	4.97
15 yrs	4.42	4.41	4.88
20 yrs	4.42	4.41	4.79
Irred	4.43	4.43	4.70

FT Fixed Indices	Aug 9	Aug 8	Yr ago
Govt. Secs(UK)	102.76	102.81	N/A
Fixed Interest	141.19	142.63	N/A

Real yield	Aug 9	Inflation 0% Dur yrs	Aug 8	Yr ago	Aug 9	Inflation 5% Dur yrs	Aug 8	Yr ago
Up to 5 yrs	2.08	3.61	2.10	2.44	1.37	3.61	1.38	1.68
Over 5 yrs	1.74	12.03	1.74	2.02	1.52	12.14	1.52	1.81
5-15 yrs	1.86	8.99	1.86	2.21	1.57	9.03	1.57	1.91
Over 15 yrs	1.62	18.12	1.62	1.91	1.47	18.21	1.47	1.75
All Stocks	1.74	11.35	1.75	2.04	1.52	11.47	1.52	1.80

Stocks with 0 - 1 year to maturity are excluded from the yield indices. The former version of this table is no longer calculated by FTSE. † Corrected values.

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FT.com Data available at www.ft.com/marketsdata

FTSE UK GILTS INDICES

Price Indices UK Gilts	Fri Jul 8	Day's chge %	Accrued interest	xd adj ytd	Total Return	Yield	Duration Years	% Weight
1 Up to 5 years (11)	107.30	-0.02	1.05	3.49	1660.61	4.06	2.67	36.27
2 5-10 years (6)	161.32	-0.04	2.15	4.69	1855.16	4.17	6.05	16.42
3 10-15 years (4)	177.55	-0.05	2.59	4.69	2018.72	4.21	8.40	13.40
4 5-15 years (10)	165.89	-0.04	2.31	4.61	1900.79	4.19	7.11	29.82
5 Over 15 years (7)	226.04	-0.04	1.71	5.19	2159.98	4.24	14.38	33.40
6 Irredeemables (1)	346.62	-0.06	1.61	7.39	2746.23	4.28	23.75	0.51
7 All stocks (29)	155.26	-0.03	1.59	4.29	1872.92	4.21	8.22	100.00

Index-linked	Fri Jul 8	Day's chge %	Accrued interest	xd adj ytd	Total Return	% Weight
1 Up to 5 years (2)	261.76	-0.01	0.47	3.99	1611.03	12.80
2 Over 5 years (7)	311.50	-0.07	2.38	3.94	1963.03	87.20
3 5-15 years (4)	288.32	-0.06	2.48	3.30	1805.67	56.95
4 Over 15 years (3)	336.59	-0.09	1.96	5.10	2133.94	30.25
5 All stocks (9)	303.17	-0.06	2.09	3.93	1916.78	100.00

Yield indices	Jul 8	Jul 7	Yr ago
5 yrs	4.12	4.10	5.04
10 yrs	4.20	4.18	5.04
15 yrs	4.23	4.22	4.96
20 yrs	4.24	4.24	4.87
Irred	4.28	4.28	4.78

Real yield	Jul 8	Inflation 0% Dur yrs	Jul 7	Yr ago	Jul 8	Inflation 5% Dur yrs	Jul 7	Yr ago
Up to 5 yrs	2.17	2.56	2.16	2.42	1.17	2.58	1.15	1.68
Over 5 yrs	1.63	12.08	1.63	2.04	1.42	12.19	1.41	1.83
5-15 yrs	1.75	8.98	1.74	2.22	1.46	9.02	1.45	1.92
Over 15 yrs	1.53	18.15	1.52	1.94	1.38	18.24	1.38	1.78
All Stocks	1.65	10.84	1.64	2.05	1.41	10.97	1.40	1.82

Stocks with 0 - 1 year to maturity are excluded from the yield & duration indices.

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Fig. 11.4 FTSE UK gilts indices

produced at the close of business each day that the Stock Exchange is open and published in the following day's newspaper, normally Tuesday to Saturday (plus further detail on ft.com). The indices cover UK gilts and index-linked government securities, with the number of stocks in each sector on each day shown after the name of that sector. The information displayed falls into two sections: price indices and yield indices.

The table in the newspaper provides the following information.

- **Price indices:** there are 12 indices, seven covering the market for all conventional UK government stocks (shorts, three categories of medium-dated, longs, irredeemable, and all stocks) and five for index-linked securities (one each for under and over 5 years, five to 15 years, and over 15 years to redemption, plus all stocks).
- **Yield indices:** there are 15 indices of yields, five based on maturity for regular gilts (including irredeemables) and 10 for index-linked securities, based on different maturities and inflation assumptions. The number of yield indices is a compromise between the need for an easily comprehensible snapshot of the market and the need to represent some of its complexities.
- **Value:** the first four columns of the price indices list current value and the percentage changes on the values of the previous day, month and year.
- **Returns:** the total return figure indicates the returns on the index, including both interest payments and the capital gain (or loss). The other return figures indicate changes in total returns, up or down, over the past month and year.
- **Government securities (UK):** the movements of a representative cross-section of gilt-edged stocks, the Government Securities index, over the past two trading days and the value of the index a year ago. This index began from a base of 100 in 1926.

The ft.com table provides the following additional information:

- **Accrued interest:** interest on gilt-edged stocks is paid in twice-yearly instalments. Accrued interest simply records the amount of interest included in each day's price index that has accumulated on the stock since the last dividend payment.
- **Ex-dividend adjustment to date:** the amount of income that a holder of a portfolio of stocks proportionate to the index would have received in the year to date, credited on the ex-dividend date for each stock.
- **Yield** and **duration years:** the yield figures indicate the average yield on stocks included in each index. The duration years measure is a weighted average time to maturity of the components of the index. Both indicators can be used by investors to compare the returns and price volatility of different maturity stocks.
- **Percentage weighting:** this indicates the proportion of the total index taken up by a specific category of stocks.

The price indices and the ex-dividend adjustment can be used to work out an appropriate market rate of return, using whatever tax rate is appropriate on income. The indices can provide a basis for performance measurement.

BENCHMARK GOVERNMENT BONDS

Aug 9	Red Date	Coupon	Bid Price	Bid Yield	Day chg yield	Wk chg yield	Month chg yld	Year chg yld
Australia	10/07	10.00	109.6720	5.23	-0.05	-	-0.02	-0.01
	04/15	6.25	106.5640	5.37	-0.05	+0.08	+0.15	-0.22
Austria	10/07	5.50	106.5200	2.40	+0.02	+0.04	+0.15	-0.11
	07/15	3.50	100.7500	3.41	+0.01	+0.04	+0.14	-0.71
Belgium	03/07	6.25	106.2050	2.30	-	+0.03	+0.14	+0.05
	09/15	3.75	102.6000	3.44	+0.01	+0.04	+0.14	-0.72
Canada	06/07	3.00	99.6800	3.18	+0.02	+0.10	+0.09	+0.18
	06/14	5.00	106.9600	4.05	+0.03	+0.11	+0.08	-0.60
Denmark	11/07	7.00	110.0800	2.36	+0.02	+0.11	+0.19	-0.37
	11/15	4.00	105.5200	3.35	-	+0.03	+0.16	-1.09
Finland	07/07	5.00	104.8600	2.34	+0.02	+0.05	+0.14	-0.14
	07/15	4.25	107.6700	3.33	+0.01	+0.05	+0.15	-0.85
France	07/07	4.75	104.4900	2.33	+0.01	+0.04	+0.14	-0.16
	07/10	2.50	98.4800	2.84	+0.02	+0.06	+0.17	-0.53
	10/15	3.00	96.3900	3.42	-	+0.04	+0.13	-0.67
	04/35	4.75	115.4000	3.87	-	+0.02	+0.08	-0.88
Germany	06/07	2.00	99.3800	2.35	+0.02	+0.05	+0.17	-0.11
	04/10	3.25	101.9100	2.80	+0.02	+0.06	+0.18	-0.48
	07/15	3.25	98.9100	3.38	+0.01	+0.05	+0.14	-0.69
	01/37	4.00	102.7600	3.85	+0.01	+0.03	+0.10	-0.88
Greece	06/08	2.90	100.7880	2.60	+0.02	+0.06	+0.17	-0.29
	07/15	3.70	100.8460	3.59	+0.01	+0.05	+0.12	-0.66
Ireland	04/09	3.25	102.1200	2.64	+0.03	+0.06	+0.17	-0.26
	04/13	5.00	112.3100	3.17	+0.02	+0.06	+0.16	-0.80
Italy	01/07	2.75	100.6700	2.28	+0.01	+0.03	+0.11	-0.32
	06/10	2.75	99.4050	2.90	+0.01	+0.13	+0.22	-0.33
	08/15	3.75	101.6900	3.58	+0.01	+0.06	+0.13	-0.67
	08/34	5.00	114.8700	4.16	+0.01	+0.04	+0.07	-0.82
Japan	09/07	2.30	104.3880	0.20	+0.07	+0.07	+0.13	-
	09/10	1.70	104.8710	0.71	+0.09	+0.11	+0.23	-0.05
	06/15	1.20	98.0550	1.43	+0.01	+0.05	+0.18	-0.19
	06/25	2.00	98.6670	2.10	+0.03	+0.02	+0.14	-0.12
Netherlands	07/07	3.00	101.1800	2.36	+0.02	+0.04	+0.15	-0.15
	07/15	3.25	98.6600	3.41	+0.01	+0.04	+0.14	-0.72
New Zealand	11/06	8.00	102.2900	6.07	-0.01	+0.02	+0.02	-0.08
	04/15	6.00	100.5700	5.92	-0.02	+0.07	+0.12	-0.27
Norway	05/09	5.50	108.5500	3.05	+0.01	+0.07	+0.23	-0.44
	05/15	5.00	110.4000	3.71	-0.01	+0.04	+0.20	-0.53
Portugal	08/07	4.88	104.8000	2.40	+0.02	+0.03	+0.14	-0.14
	10/15	3.35	98.6400	3.51	+0.01	+0.04	+0.13	-0.65
Spain	10/06	4.80	103.0920	2.20	+0.01	+0.04	+0.11	-0.39
	01/15	4.40	108.2800	3.36	-	+0.05	+0.14	-0.73
Sweden	08/07	8.00	111.5070	2.09	-0.02	+0.03	+0.21	-0.60
	08/15	4.50	110.6620	3.24	-	+0.05	+0.17	-1.14
Switzerland	06/07	4.50	106.1080	1.10	+0.03	+0.05	+0.14	+0.13
	06/15	3.75	115.0580	2.04	+0.03	+0.03	+0.06	-0.60
UK	09/06	7.75	103.6200	4.28	+0.01	-	+0.09	-0.47
	06/10	4.75	101.8600	4.32	-	+0.03	+0.14	-0.62
	09/15	4.75	102.8300	4.40	+0.01	+0.02	+0.08	-0.54
	03/36	4.25	97.5700	4.40	+0.01	+0.03	+0.07	-0.27
US	07/07	3.88	99.4688	4.16	+0.01	+0.12	+0.34	+1.61
	07/10	3.88	98.1953	4.28	+0.02	+0.13	+0.33	+0.76
	05/15	4.13	97.5938	4.43	+0.02	+0.10	+0.29	+0.13
	02/31	5.38	111.3906	4.61	+0.02	+0.08	+0.22	-0.46

London close. New York close. Source: Reuters.
Yields: Local market standard Annualised yield basis. Yields shown for Italy exclude withholding tax at 12.5 per cent payable by non residents.

Fig. 11.5 Benchmark government bonds

The yield indices can be used to monitor the difference in yield between gilt-edged stocks and equities (the yield gap), as a guide to market rates in making valuations and in setting the terms for new issues.

Benchmark government bonds

Coverage of government bond markets outside the United Kingdom picks out items of importance or interest from internationally tradeable government bond markets throughout the world and, where relevant, related futures and options activity. Figure 11.5 shows the daily *Financial Times* table of benchmark bonds in key markets, which includes:

- **National markets:** a summary of daily movements in important benchmark bonds in a number of markets.
- **Benchmarks:** bonds are described by redemption date and coupon, the bid price, the yield according to the local market standard (as standards vary, yields are not necessarily comparable) and the change in the yield from the previous day, week, month and year.

A related table shows the spreads on 10-year benchmark government bonds (see Figure 11.6). For each country, there is a figure for bid yield on a 10-year bond (the yield an investor would receive for buying a 10-year bond) and figures for spreads against 10-year bunds (German government bonds) and US Treasury bonds. The spread indicates the additional yield an investor would receive for buying, say Australian debt as opposed to comparable US debt. It is the premium for yield compared with the benchmark, a reward for the additional risk. If the figure is negative, it indicates that the bond in question is viewed as less risky than a bund or Treasury bond.

The *Financial Times* also carries a table of prices, yields and spreads for a variety of government bonds in emerging markets (see Figure 11.7). As these bonds are typically thought to be more risky than the ones in developed countries (that is, there is a stronger possibility that the governments will default on the debt), the spreads over

TEN YEAR GOV'T BOND SPREADS

Aug 9	Bid Yield	Spread vs Bund	Spread vs T-Bonds		Bid Yield	Spread vs Bund	Spread vs T-Bonds
Australia	5.37	+1.99	+0.94	Netherlands	3.41	+0.03	-1.02
Austria	3.41	+0.03	-1.02	New Zealand	5.92	+2.54	+1.49
Belgium	3.44	+0.06	-0.99	Norway	3.71	+0.33	-0.72
Canada	4.05	+0.67	-0.38	Portugal	3.51	+0.13	-0.92
Denmark	3.35	-0.03	-1.08	Spain	3.36	-0.02	-1.07
Finland	3.33	-0.05	-1.10	Sweden	3.24	-0.14	-1.19
France	3.42	+0.04	-1.01	Switzerland	2.04	-1.34	-2.39
Germany	3.38	-	-1.05	UK	4.40	+1.02	-0.03
Greece	3.59	+0.21	-0.84	US	4.43	+1.05	-
Ireland	3.17	-0.21	-1.26				
Italy	3.58	+0.20	-0.85				
Japan	1.43	-1.95	-3.00				

Yields: annualised basis. Source: Reuters.
Selection made by Reuters.

Fig. 11.6 Ten-year government bond spreads

HIGH YIELD & EMERGING MARKET BONDS

Aug 9	Red date	Coupon	Ratings S*	M*	F*	Bid price	Bid yield	Day's chge yield	Mth's chge yield	Spread vs US
■ HIGH YIELD US$										
TNK-BP	11/07	11.00	BB-	n/a	BB+	110.88	5.73	+0.16	-0.26	+1.57
Gazprombk	10/08	7.25	B+	Baa2	n/a	104.23	5.79	+0.05	+0.20	+1.56
Gazprom	03/13	9.63	BB-	n/a	n/a	120.30	6.22	+0.14	+0.31	+1.78
Kazkommertsbk	04/13	8.50	BB-	n/a	BB	106.22	7.42	+0.04	-0.06	+2.99
■ HIGH YIELD €										
Gaz Capital	09/10	7.80	BB-	n/a	BB	116.43	4.17	+0.06	+0.06	+1.37
Fiat Fin	05/11	6.75	n/a	Ba3	BB-	100.80	6.57	-	-0.60	+3.62
■ EMERGING US$										
Argentina FRB	03/10	11.38	D	Ca	n/a	31.00	52.18	+0.02	+0.51	+47.88
Brazil C	04/14	8.00	BB-	B1	BB-	101.06	7.69	-0.06	+0.32	-
Mexico	05/26	11.50	BBB	Baa1	BBB-	157.88	6.42	+0.03	+0.14	+1.80
Peru Disc	03/27	2.56	BB-	Ba3	BB-	84.75	-	-	-	-
S Korea	04/08	8.88	A-	A3	A	111.13	4.42	+0.05	+0.28	+0.19
Philippines	03/10	9.88	BB-	B1	BB	110.19	7.23	-0.11	-0.23	+2.94
China	05/11	6.80	BBB+	A2	A-	109.43	4.88	+0.02	+0.28	+0.55
Turkey	06/10	11.75	BB-	B1	BB-	123.19	6.14	+0.07	+0.13	+1.85
Bulgaria IAB	07/11	3.96	BBB-	NR	BBB-	100.13	4.99	-	-0.19	-
Russia	03/30	5.00	BBB-	B3	BBB-	110.19	5.77	-0.01	+0.11	+1.16
S Africa	05/09	9.13	BBB	Baa1	BBB	113.88	5.03	+0.16	+0.23	+0.81
Qatar	06/30	9.75	A+	A1	n/a	148.50	5.98	+0.07	+0.29	+1.36
■ EMERGING €										
Poland	02/11	5.50	BBB+	A2	BBB+	112.10	3.08	+0.02	+0.14	+0.11
Hungary	06/11	5.63	A-	A1	A-	113.33	3.11	+0.03	+0.13	+0.15
Brazil	02/10	11.00	BB-	B1	n/a	120.52	5.67	+0.08	-0.01	+2.88
Argentina	09/16	12.00	DEF	DEF	DD	28.93	43.17	+0.01	-0.72	+39.77

US $ denominated bonds NY latest; all other London closing. *S - Standard & Poor's, M - Moody's, F - Fitch.

Fig. 11.7 High yield and emerging market bonds

Treasuries are correspondingly higher. In other words, to compensate for the additional risk, additional returns are on offer.

In addition to the standard price, yield and spread information, this table provides measures of the riskiness of the different securities. Standard & Poor's, Moody's and Fitch are credit-rating agencies, which evaluate the risk of default on both government and corporate bonds. The rating system used by Standard & Poor's, for example, varies from AAA (triple-A) for a bond with minimal default risk through AA, A, BBB, BB, B, CCC, CC, C and D in increasing order of riskiness. A plus or minus sign indicates whether a bond has been recently up- or downgraded. An upgrade means it has been rated as being at less risk of default.

Corporate bonds

Bonds issued by institutions other than governments make up a substantial part of the world's largest bond markets. Because the bulk of bonds issued by non-sovereign debtors are issued by corporations, these fixed-income securities are called corporate bonds. This is a market that has grown enormously. In the mid-1990s, the outstanding non-government, non-eurobond debt issued in sterling was less than 10 per cent of the

amount issued by the UK government in the form of gilts. Ten years later, corporate debt outstanding was nearly £150bn compared with less than £10bn in 1995.

The yields on corporate bonds are generally higher and the prices lower, reflecting the more variable creditworthiness of their issuers and a greater risk of default. These bonds too are classified by rating agencies such as Standard & Poor's, Moody's and Fitch, which rate bonds according to the risk they carry (ranging from high-quality AAA to below grade D).

Low-grade corporate bonds rated as being below investment quality may be issued offering very high yields. Known colloquially as junk bonds, these essentially unsecured, high-yield debt securities peaked in popularity in the late 1980s, and financed a significant portion of the merger and acquisition boom in the United States.

When new corporate bonds are issued, their yields are generally set with reference to benchmark government bonds, offering a spread over the gilt yield in order to make up for the greater risk of default that they bear. Companies, unlike governments, can always go under, they have a finite lifespan and the market for their bonds is less liquid than the gilt market.

The Capital Markets & Commodities page in Tuesday to Friday's newspaper carries reports on new international bond issues, together with tables of the previous day's prices and issues. These markets have emerged with the growth of what have come to be known as Eurocurrencies. A Eurocurrency is a currency deposited outside its country of origin. For example, a UK exporter might receive dollars but not convert them into pounds. Since the United States, in running persistent trade deficits, exports dollars, banks accumulate these deposits, which are then put to work. This stateless money is free of local regulations and London is its centre. Eurocurrencies are borrowed by loans or the issue of various kinds of debt instrument that "securitise" the money: Euronotes, Eurocommercial paper and Eurobonds.

Eurobonds are the most common. They tap the large stateless pool of cash and are traded in a secondary market of screens and telephones. These are volatile and unregulated markets and they can become illiquid since there is no obligation for anyone to take part.

In many aspects trading activity in these markets is similar to trading in domestic stock markets, particularly in the case of sterling bond issues, industrial debentures and corporate bonds.

New international bond issues

On Tuesday to Friday, the *Financial Times* has a table of the previous day's new international bond issues, broken down according to the issuing currency (see Figure 11.8):

- **All new issues launched the previous day:** the table gives details of the borrower, currency, amount, coupon, price, maturity, the fees payable to the underwriters, the yield spread over a comparable government bond, and the issue's arranger. The table also carries details of bonds on which terms have been altered or finalised subsequent to launch.

Total amount to be raised in millions of units of the relevant currency

Price of an individual bond

Yield spread compared with a government bond

NEW INTERNATIONAL BOND ISSUES

Borrower	Amount m.	Coupon %	Price	Maturity	Fees %	Spread bp	Book-runner
■ **EUROS**							
Lehman Brothers‡	500	FRN	99.609	Jul 2012	0.350	3ME +25bp	Lehman Brothers
■ **STERLING**							
Dolerite Funding 2 Cl A(a)‡	486	FRN	100.00	May 2037	Undiscl	3ML +18bp	Citigroup/M Stanley
Dolerite Funding 2 Cl B(a)‡	27	FRN	100.00	May 2037	Undiscl	3ML +29bp	Citigroup/M Stanley
Dolerite Funding 2 Cl C(a)‡	27	FRN	100.00	May 2037	Undiscl	3ML +48bp	Citigroup/M Stanley
Dolerite Funding 2 Cl D(a)‡	36	FRN	100.00	May 2037	Undiscl	3ML +80bp	Citigroup/M Stanley
Dolerite Funding 2 Cl E(a)‡	24	FRN	100.00	May 2037	Undiscl	3ML +340bp	Citigroup/M Stanley
■ **SWISS FRANCS**							
Rabobank	400	1.500	100.285	Aug 2010	0.75		UBS
■ **AUSTRALIAN DOLLARS**							
Total Capital	100	5.75	101.497	Jul 2012	Undiscl		RBC CM
■ **NEW ZEALAND DOLLARS**							
Total Capital	100	6.50	101.385	Jul 2012	Undiscl		RBC CM

Bond issue details are online at www.ft.com/bondissues. Final terms, non-callable unless stated. Yield spread (over relevant government bond) at launch supplied by lead manager. ‡ Floating-rate note. a) CMBS. **Source: Thomson Financial**

Coupon or interest rate

Redemption date

Lead manager of the issue and their fee

Fig. 11.8 New international bond issues

■ **Book-runner:** the issuer gives a mandate to one or more lead banks to manage the issue. The fee is paid in the form of a discount on the issue price.

Global investment-grade bonds and bond indices

From Tuesday to Friday, the newspaper carries information on the secondary market prices for a range of actively traded corporate bonds, those classed as being "global investment grade" (see Figure 11.9). Any of the bonds shown may be used as benchmarks by investors evaluating potential fixed-income investments or by companies or governments planning new issues.

The price, yield, spread (against a comparable government bond) and rating information provided in this table are intended to give a representation of current market conditions in various countries, currencies, sectors, and bond riskiness and time to maturity. For example, the US dollar-denominated corporate bonds section includes utilities such as Deutsche Telecom, financial corporations such as JP Morgan, industrial companies such as General Motors and government agencies such as Fannie Mae.

This market for corporate bonds offers another method of raising money for companies that do not want to issue stock or accept the conditions of a bank loan. It originally

GLOBAL INVESTMENT GRADE

Aug 9	Red date	Coupon	Ratings S*	M*	F*	Bid price	Bid yield	Day's chge yield	Mth's chge yield	Spread vs Govts
■ US $										
KFW Int Fin	10/05	2.50	AAA	Aaa	AAA	99.75	3.84	+0.05	+0.18	+0.35
Unilever	11/05	6.88	A+	A1	A+	100.74	3.45	-0.04	+0.15	-0.07
Ford Motor Cr	02/06	6.88	BB+	Baa2	BBB	100.65	5.45	+0.05	-0.28	+1.66
Walt Disney	03/06	6.75	A-	Baa1	BBB+	101.59	4.18	+0.04	+0.12	+0.39
Morgan Stanley	04/06	6.10	A+	Aa3	AA-	101.20	4.27	+0.03	+0.36	+0.44
Amer Elec Pwr	05/06	6.13	BBB	Baa3	BBB	101.29	4.37	+0.04	+0.12	+0.04
FHLMC	07/06	5.50	AAA	Aaa	AAA	101.06	4.32	+0.13	+0.46	+0.52
Canada	11/08	5.25	AAA	Aaa	AAA	102.65	4.35	-0.04	+0.32	+0.13
Wal Mart	08/09	6.88	AA	Aa2	AA	108.07	4.64	+0.04	+0.28	+0.36
Du Pont	10/09	6.88	AA-	Aa3	AA-	108.51	4.61	+0.14	+0.33	+0.33
Phillips Petr	05/10	8.75	A-	A3	A-	116.91	4.76	+0.02	+0.24	+0.48
Unilever	11/10	7.13	A+	A1	A+	110.66	4.79	-0.02	+0.29	+0.51
Bank America	01/11	7.40	A+	Aa3	A+	113.05	4.65	+0.03	+0.31	+0.37
JP Morgan	02/11	6.75	A	A1	A	109.49	4.76	+0.03	+0.31	+0.47
France Telecom	03/11	8.00	A-	A3	A-	114.66	4.72	-0.02	+0.07	+0.43
FNMA	03/31	6.75	AAA	Aaa	AAA	125.53	4.98	+0.02	+0.20	+0.36
Goldman Sachs	11/14	5.50	A+	Aa3	AA-	101.63	5.27	-	+0.20	+0.84
Italy	09/23	6.88	AA-	Aa2	AA	119.76	5.18	+0.03	+0.24	+0.57
Pacific Bell	03/26	7.13	A	A2	A+	114.33	5.91	+0.02	+0.19	+1.30
Deutsche Tel	07/13	5.25	A-	A3	A-	101.84	4.97	-	-0.02	+0.55
Daimler Chrysler	01/31	8.50	BBB	A3	BBB+	125.12	6.47	+0.03	-0.06	+1.88
FHLMC	03/31	6.75	AAA	Aaa	AAA	125.53	4.98	+0.02	+0.20	+0.36
GE Capital	03/32	6.75	AAA	Aaa	AAA	118.07	5.45	+0.03	+0.18	+0.85
Gen Motors	11/31	8.00	BB	Baa2	BB+	91.83	8.80	-	-0.91	+4.22
■ €										
Rabobank	09/05	4.50	AAA	Aaa	AA+	100.16	2.22	-	-0.04	+0.12
SNCF	11/05	8.25	AAA	Aaa	AAA	101.66	2.31	+0.02	-0.60	+0.28
Wuertt Hypo	01/06	3.50	AAA	n/a	n/a	100.57	2.21	+0.02	-0.02	+0.14
West LB	02/06	5.00	AA-	Aa2	AAA	101.32	2.24	-	+0.05	+0.15
BNG	02/06	4.75	AAA	Aaa	AAA	101.37	2.17	-	+0.04	+0.09
Landesbank HTG	03/06	6.50	AA+	Aaa	AAA	102.68	2.24	-	-0.06	+0.16
Deutsche Telec	07/06	5.88	A-	A3	A-	103.16	2.32	-	+0.07	+0.12
Eurohypo	02/07	4.00	AAA	Aaa	AAA	102.36	2.34	+0.01	+0.13	-
Depfa Pfandrbnk	01/09	3.75	AAA	Aaa	AAA	103.80	2.57	-	+0.17	-0.10
Mannesman Fin	05/09	4.75	A	A2	A	106.25	2.98	+0.05	+0.17	+0.31
Deutsche Fin	07/09	4.25	AA-	Aa3	AA-	105.89	2.66	-0.09	+0.02	-0.01
Repsol Int Fin	05/10	6.00	BBB+	Baa1	BBB+	111.96	3.23	+0.02	+0.16	+0.43
Elec de France	10/10	5.75	AA-	Aa1	AA-	113.35	2.94	-0.06	+0.09	+0.14
HVB	09/11	5.00	AAA	Aa3	AAA	110.43	3.09	+0.01	+0.17	+0.13
■ YEN										
Nippon Teleg	03/06	3.35	AA-	Aa2	n/a	101.97	0.09	-	-	-
Tokyo Elec	11/06	2.80	AA-	Aa3	n/a	103.50	0.11	-	+0.02	-
Toyota Motor	06/08	0.75	AAA	Aaa	n/a	101.39	0.26	-	+0.07	-0.02
KFW Int Fin	03/10	1.75	AAA	Aaa	AAA	105.68	0.50	-	+0.12	-0.12
Chubu Elec	07/15	3.40	AA-	Aa3	n/a	117.41	1.41	+0.01	+0.16	-
■ £										
DaimlerChrysler	12/06	7.50	BBB	A3	BBB+	103.14	4.89	-0.36	-0.24	+0.62
HBOS	04/08	6.38	AA	Aa2	AA+	104.16	4.60	+0.05	+0.12	+0.35
Network Rail	03/09	4.88	AAA	Aaa	AAA	101.18	4.45	-0.01	+0.09	+0.17
Boots	05/09	5.50	BBB+	Baa1	A-	100.82	5.18	+0.06	+0.04	+0.90
France Telecom	03/11	7.75	A-	A3	A-	112.39	5.17	-0.01	+0.13	+0.83

US $ denominated bonds NY latest; all other London closing. *S - Standard & Poor's, M - Moody's, F - Fitch.

Fig. 11.9 Global investment grade

grew up because of the restraints of government regulations in traditional equity and money markets.

This market also offers opportunities for interest rate and currency swaps. For example, when a company that can easily raise money in sterling because of local reputation needs dollars to fund an acquisition or expansion, it may find an American company in the opposite position and swap debt.

For investors, the markets are international and anonymous – there is no register of creditors – and tax-efficient. They offer the chance to play the markets for currencies, debt, equity and interest rates simultaneously, but because of their complexity they are generally restricted to large investment banks.

The list of industrial, financial and utility bonds denominated in euros is an indicator of the growing eurozone bond market. The replacement of 10 currencies by a single currency has automatically removed currency risk for a large and liquid pool of funds currently restricted to domestic markets.

The effects are manifold. First, and most importantly, the removal of currency risk for cross-border investments within the eurozone creates a market to rival the size of the US bond market. German pension fund managers and French insurance companies are no

BONDS www.ft.com/bonds&rates

BOND INDICES

Aug 8	No of bonds	Index	Day's change	Month's change	Year change	Return 1 month	Return 1 year
■ JPMorgan							
GBI Global (Local)	548	354.46	-0.03	-0.55	2.46	-0.94	5.25
GBI Broad (Local)	760	359.86	-0.03	-0.53	2.55	-0.91	5.51
EMU BI (€)	230	224.94	0.04	-0.59	3.98	-0.80	7.92
EMBI+ ($)	ND	347.13	-0.45	-0.04	5.22	0.15	15.63
Maggie (€)	1694	142.70	0.03	-0.55	3.79	-0.71	7.59
■ Citigroup							
WorldBIG (€)	4530	135.24	-0.08	-1.51	6.55	-2.82	3.98
EuroBIG (€)	1563	141.18	0.08	-0.56	3.73	-0.66	7.43
Euro Financial (€)	217	144.72	0.07	-0.41	3.60	-0.47	7.10
Euro Industrial (€)	221	134.57	0.02	-0.58	2.60	-0.24	5.78
Euro Utility (€)	148	146.97	0.08	-0.55	3.78	-0.53	7.86
■ Merrill Lynch							
Global high yield (Local)	2190	148.34	-0.20	-0.55	2.42	0.86	10.12
Euro high yield (€)	180	124.40	-0.43	-0.36	4.40	1.46	11.93
UK high yield (£)	37	163.72	-0.17	-0.37	3.83	1.12	17.66
EMU large cap (€)	1806	188.98	0.03	-0.56	3.74	-0.71	7.43
■ Lehman Brothers							
Global aggregate ($)	9978	310.81	0.16	0.28	-3.06	0.72	4.98
Europe aggregate (€)	2503	152.65	0.07	-0.55	3.69	-0.66	7.37
US aggregate ($)	6234	1221.46	-0.08	-0.52	1.06	-0.88	3.03
US Gov ($)	806	1380.78	-0.09	-0.53	1.15	-1.06	2.51
US Corporates ($)	2611	1518.84	-0.09	-0.75	0.59	-0.94	3.56
■ iBoxx Aug 6							
Euro Overall (€)	1534	141.08	-0.02	-0.57	3.71	-0.72	7.43
Euro Corporates (€)	717	141.38	-0.03	-0.52	3.26	-0.59	7.04
Overall (£)	983	169.71	-0.03	-0.54	4.08	-0.97	9.03
Non-Gilts (£)	958	173.91	-0.03	-0.53	4.36	-0.92	9.84
Corporates (£)	608	176.93	-0.03	-0.53	4.30	-0.90	10.08
■ FTSE Aug 6							
Sterling Corporate (£)	165	101.84	0.09	-1.40	3.38	-0.92	9.39
Euro Corporate (€)	319	104.13	0.01	-1.01	1.89	-0.60	6.89
Euro Emerging Mkts (€)	44	96.17	-0.07	-0.20	4.05	0.37	11.47
Eurozone Gov't Bond (€)	246	105.03	0.03	-1.12	3.34	-0.77	7.84

Websites: www.jpmorgan.com, lehmanlive.com, smithbarney.com, ml.com, iboxx.com, ftse.com. All indices shown are unhedged. Currencies are shown in brackets after the index names.

Fig. 11.10 Bond indices

longer restricted to a diet of mostly domestic government bonds and related securities. They can now buy Italian or Finnish government bonds without worrying about currency volatility. As a result, governments are forced to be much more investor friendly than in the past. This includes the introduction of much more transparent auction programmes, the advent of fully fledged strip trading on government paper and a further opening of the auction process to foreign participation.

This will also push investors into non-government bonds. Tight fiscal policy and the convergence of eurozone government bond yields around those of German government bonds have meant a collapse of yields in Italy and Spain and declining yields across continental Europe, driving a switch from government bonds to equities and corporate bonds. Since good returns in the past came from favourable currency fluctuations, investors are increasingly forced to look at paper with lower credit rating if they want to outperform the bond indices (a range of which are published in the newspaper – see Figure 11.10). So the second effect of the single currency is the creation of a fully fledged corporate bond market, including high-yield bonds, as investors move down the credit curve in search of higher returns.

Since there is now no possibility of currency depreciation with eurozone government bonds, prices no longer reflect that risk. Instead, they have adjusted to price the risk of default, something that was an impossibility as long as governments could always print enough of their own currency to meet their obligations as they fell due.

The bond indices table shows some of the key indices from major providers, including the number of bonds in each index and its recent values. For example, a row in the iBoxx section shows an index for UK corporate bonds, and one of the Merrill Lynch rows shows the same figures for a sterling high-yield index. The return figures for recent periods indicate how these markets have performed against, say, European government and corporate bonds.

Market volatility

A pair of tables on ft.com gives an indication of the volatility or riskiness of global bond and equity markets (see Figure 11.11). The first column provides the latest reading for the volatility index, followed by the change on the previous reading, the reading for a month ago and the 52-week high and low. A "RiskGrade" of 100 corresponds to the average volatility of the international equity markets during "normal market conditions". So anything less than 100 is less volatile than global stock markets in normal times. In this example, the bond markets are clearly less volatile than the equity markets, and the European bond markets are currently less volatile than the American bond markets and more volatile than they were a month ago.

FT.com Data available at www.ft.com/marketsdata

RISKGRADE™ VOLATILITY

Bond markets	Jul 7	Day change	Month ago	52 wk high	52 wk low
Europe	28	-1	23	30	21
Americas	41	-1	39	50	34
Asia	18	0	17	31	16
Global	26	-1	31	51	22

FT.com Data available at www.ft.com/marketsdata

RISKGRADE™ VOLATILITY

Equity markets	Jul 7	Day change	Month ago	52 wk high	52 wk low
Europe	55	4	55	78	43
UK	44	4	39	58	36
Americas	49	-1	55	64	45
Asia	55	-1	66	102	48
Global	52	1	56	72	48

RiskGrades are calculated daily by RiskMetrics. They are designed to measure the riskiness of today's global market returns. A RiskGrade of 100 corresponds to the average volatility of the international equity markets during normal market conditions. Data shown is one day in arrears. More information is available at www.riskgrades.com

Fig. 11.11 RiskGrade volatility

“The prevailing wisdom is that markets are always right. I take the opposite position. I assume that markets are always wrong. Even if my assumption is occasionally wrong, I use it as a working hypothesis.”

George Soros

“Money is a good servant, but a bad master. Money made it easier for earlier societies to escape from slavery or serfdom. But money, though essential, is only a means, not an end. You cannot eat it, drink it, wear it, or live in it.”

Douglas Jay

12

Cash and currency

The foreign exchange and money markets

- **The currency markets** – determining the rates of exchange for sterling, the dollar, the euro and other leading currencies: reading the figures and using the information on exchange rates for the pound spot and forward; the dollar spot and forward; the euro spot and forward; other currencies of the world
- **The money markets** – determining the price of money and short-term financial instruments: UK interest rates; world interest rates; official rates

The currency markets are global markets for foreign exchange (forex). Their primary purposes are to allow companies and other organisations to purchase goods from abroad, and for foreign investment or speculation. Hence they are markets largely of concern to companies and financial institutions or investors in stocks that are particularly sensitive to currency or interest rate movements.

The money markets include the foreign exchange markets but also cover the domestic UK market for short-term loans essentially between the major institutions of the City: banks, accepting houses, discount houses and the Bank of England.

The daily Stock Markets & Currencies page in the Companies & Markets section of the *Financial Times* includes a brief report describing the major events in the foreign exchange markets during the previous day's trading and discussing the main factors affecting exchange rates. The daily Market Data page has more information on currencies and interest rates, while far greater detail is available on ft.com.

With the exception of the domestic money market in its various forms, these are international markets in which business is conducted 24 hours a day by telephone and computer screen. As the London markets close in the evening, business is handed over to New York, which overlaps with Tokyo for a couple of hours each afternoon. Thus, there are no official closing rates in these international markets. The newspaper takes a representative sample of rates from major participants in the London markets at around 5pm local time each trading day.

The currency markets

Foreign exchange markets exist to facilitate international trade, and allow companies involved in international trade to hedge transactions through the forward purchase or sale of relevant currencies at a fixed rate, designed to counteract any potential losses through future rises or falls in their values. In practice, however, the bulk of turnover in these markets is attributable to speculation, and while speculation provides the markets with necessary liquidity, it can also destabilise those markets, hence creating a further need for hedging.

As in all markets, the value of currencies in the international market is determined by supply and demand. The main players are the foreign exchange dealers of commercial banks, hedge funds and foreign exchange brokers. However, the market is often significantly affected by the intervention of central banks on behalf of governments. So, in this marketplace there is considerable interaction between the authorities and market professionals.

According to the Bank for International Settlements, the central bank for central banks, average daily turnover on the world's foreign exchange markets reached almost $1,900 billion in April 2004, 57 per cent higher than when it last measured forex flows in 52 different countries three years earlier. Transactions involving dollars on one side of the trade accounted for 89 per cent of that forex business, followed by the euro (37%), the yen (20%) and sterling (17%). Almost a third of all forex trading takes place in London, by

far the world's largest centre, with New York and Tokyo second and third. Although London forex trading grew more slowly than New York over the three years to 2004, its average daily turnover remains greater than those of New York and Tokyo combined, having risen from $504 billion to $753 billion.

To put these figures into perspective, daily trading volume on the New York Stock Exchange (NYSE) is only about $55 billion, and so at $1,900 billion, foreign exchange trading is 35 times NYSE trading. This volume is far greater than the size of foreign currency reserves held by any single country. The forex markets cannot be ignored: for their size and forecasting ability; and for the potential that developments in these markets have for the future of the dollar as the world's dominant currency.

In the past, trading in the real economy controlled relative currency relationships. Since most currency flows were to settle trading patterns, there was a balance as goods and capital moved at about the same speed. But now the leads and lags are the other way around. Because financial flows are many times the size of trade flows and because financial flows are nearly instantaneous, currency market levels now tend to set trade: if a country's currency becomes low relative to others, domestic producers find it easier to export. The market sets the economy.

Speculation provides liquidity but makes the markets volatile and prediction difficult. Currency swings can be vast and often not very attached to fundamentals. They are particularly damaging for companies that rely heavily on exports or imported raw materials.

The core determining factor of a currency's value is the health of the real national economy, especially the balance of payments current account. If there is a surplus on the current account, that is, a country sells more goods than it buys, then buyers have to acquire that currency to purchase goods. This adds to foreign reserves and bids up the price of that currency. As it rises, exports rise in price, fall in quantity and the currency falls again. Conversely, a current account deficit implies the need to sell the local currency in order to acquire foreign goods. Persistent current account deficits, particularly if allied with relatively low foreign reserves, indicate a problem.

A currency's value is also affected by the level of inflation and the domestic rate of interest. High rates of interest and low inflation make a currency attractive for those holding assets denominated in it or lending it to borrowers. So typically one country raising interest rates while others remain the same will raise the value of that currency as money flows into the country. This will have a limited effect if the fundamentals are wrong, that is, if there is a persistent deficit on the current account.

A significant factor determining short-term currency values is market sentiment. There can be a self-fuelling process in which enthusiasm for a currency, or the lack of it, drives the rate. Speculators might decide, as they did with the pound sterling on Black Wednesday in September 1992 and during the Asian and Russian crises of 1997/8, that a currency is overvalued or simply that there are speculative gains to be made. Short selling will then cause it to fall, often in spite of government intervention.

Currency attacks are triggered when a small shock to the fundamentals of the economy is combined with systemic weaknesses in the corporate and banking sectors. One facet of such systemic weaknesses is the effect of belated hedging activity by some economic

actors in the economy whose currency is under attack. The more these actors try to hedge, the greater is the incentive for others to follow suit. This unleashes a whiplash effect, which turns a potentially orderly depreciation into a collapse of the currency. In other words, if speculators believe a currency will come under attack, their actions will precipitate the crisis, while if they believe the currency is not in danger, their inaction will spare it from attack – attacks are self-fulfilling.

The magnitude of the shock necessary to trigger an attack need not be large, which makes predictions very difficult. Nevertheless, it is possible to draw some broad conclusions on the vulnerability of currencies to attack. In particular, there must be a pre-existing weakness, which will prevent the authorities from conducting a fully fledged defence of the currency by raising interest rates. The weakness may not be lethal in itself (though it can become lethal once the situation deteriorates) so it is a necessary condition but not a sufficient condition for a speculative attack.

Self-fulfilling attacks may affect any country – with a fixed exchange rate and high capital mobility – that is in the grey area between "fully safe" and "sure to be attacked". Recent research suggests that a country with strong trade links to a country that has recently experienced a currency crisis is highly likely to face an attack itself – the growing phenomenon of contagion in foreign exchange markets.

The pound spot and forward

Currencies are measured in terms of one another or a trade-weighted index, a basket of currencies. The value of a currency in a trade-weighted index is assessed on a basis that gives a value appropriate to the volume of trade conducted in that currency. The ft.com website provides detailed information on three currencies in the world: the pound, the dollar and the euro. Many international contracts are struck in these currencies and the dollar particularly is used globally as a reserve currency.

Figure 12.1 lists spot and forward prices for the pound against the currencies of the other major industrialised countries.

Reading the figures

- **Closing mid-point, change on day** and **day's mid-point high and low:** yesterday's closing price for immediate delivery of pounds, the mid-point between the prices at which they can be bought and sold; the change on the previous day's price; and the day's high and low for mid-point prices, the highest and lowest prices at which dealings have taken place during the European trading day. Since sterling is the largest currency unit, all prices are given in so many euros, dollars, etc. to the pound.
- **Bid/offer spread:** a representative spread on the price at the close. Different banks may quote slightly different rates at the same time, particularly if the market is moving in a very volatile fashion. As with shares, marketmakers buy currencies at a lower price than they sell them in order to make a profit. The spreads are shown only to the last three decimal places.

FT.com Data available at www.ft.com/marketsdata

POUND SPOT FORWARD AGAINST THE POUND

Jul 8		Closing mid-point	Change on day	Bid/offer spread	Day's Mid high	Day's Mid low	One month Rate	One month %PA	Three months Rate	Three months %PA	One year Rate	One year %PA	Bank of Eng. Index
Europe													
Czech Rep.	(Koruna)	43.8633	-0.2112	258 - 008	44.2150	43.7960	43.7515	3.1	43.5488	2.9	42.7446	2.6	-
Denmark	(DKr)	10.8455	-0.0151	426 - 484	10.8927	10.8423	10.8214	2.7	10.7793	2.4	10.6159	2.1	106.4
Hungary	(Forint)	359.870	-1.3360	528 - 211	362.320	359.528	360.536	-2.2	361.747	-2.1	367.61	-2.2	-
Norway	(NKr)	11.4613	-0.0449	556 - 671	11.5382	11.4503	11.4353	2.7	11.3909	2.5	11.2431	1.9	102.6
Poland	(Zloty)	5.9234	-0.0466	178 - 289	5.9880	5.9178	5.9243	-0.2	5.9246	-0.1	5.9244	0.0	-
Russia	(Rouble)	49.9580	-0.2147	479 - 681	50.2842	49.9068	49.9433	0.4	49.9614	0.0	50.3014	-0.7	-
Slovakia	(Koruna)	56.3798	-0.0892	371 - 225	56.7620	56.3350	56.2818	2.1	56.1081	1.9	55.3495	1.8	-
Slovenia	(Tolar)	347.793	-0.8650	666 - 920	350.620	346.295	347.52	0.9	347.129	0.8	345.169	0.8	-
Sweden	(SKr)	13.7331	+0.0230	275 - 386	13.7642	13.7091	13.6959	3.2	13.6286	3.0	13.3716	2.6	78.3
Switzerland	(SFr)	2.2607	+0.0048	598 - 616	2.2676	2.2577	2.2529	4.1	2.2389	3.9	2.1829	3.4	111.5
Turkey	(Lira)	2.3350	-0.0234	304 - 397	2.3628	2.3304	2.3558	-10.7	2.3948	-10.3	2.5694	-10.0	-
UK	(£)	-	-	-	-	-	-	-	-	-	-	-	98.8
Euro	(Euro)	1.4548	-0.0020	545 - 552	1.4614	1.4540	1.4516	2.6	1.4459	2.5	1.4236	2.1	90.57
SDR	(€)	1.202700	-	-	-	-	-	-	-	-	-	-	-
Argentina	(Peso)	4.9848	-0.0285	820 - 875	5.0178	4.9820	4.9855	-0.2	5.0025	-1.4	5.1987	-4.3	-
Americas													
Brazil	(R$)	4.0949	-0.0656	913 - 984	4.1354	4.0913	4.1526	-16.9	4.2508	-15.2	4.6825	-14.4	-
Canada	(C$)	2.1164	-0.0282	157 - 172	2.1449	2.1156	2.1125	2.2	2.1062	1.9	2.0887	1.3	95.0
Mexico	(New Peso)	18.6449	-0.1727	384 - 513	18.8183	18.6384	18.7273	-5.3	18.8952	-5.4	19.632	-5.3	-
Peru	(New Sol)	5.6423	-0.0192	408 - 438	5.6685	5.6396	5.6366	1.2	5.6327	0.7	5.6626	-0.4	-
USA	($)	1.7361	-0.0051	359 - 363	1.7439	1.7310	1.7341	1.4	1.7317	1.0	1.73	0.4	96.6
Australia	(A$)	2.3379	-0.0140	370 - 388	2.3626	2.3370	2.3396	-0.9	2.3441	-1.1	2.3687	-1.3	89.0
Pacific/Middle East/Africa													
Hong Kong	(HK$)	13.4975	-0.0369	954 - 996	13.5586	13.4578	13.4817	1.4	13.4603	1.1	13.4111	0.6	-
India	(Rs)	75.6593	-0.2309	811 - 374	76.0170	75.5060	75.6907	-0.5	75.7838	-0.7	76.3924	-1.0	-
Indonesia	(Rupiah)	17022.5	-32.60	118 - 331	17127.4	16977.7	17002.74	1.4	16979.41	1.0	16962.65	0.4	-
Iran	(Rial)	15616.2	-45.9000	127 - 198			-	-	-	-	-	-	-
Israel	(Shk)	7.9852	-0.0383	765 - 939	8.0254	7.9765	7.9774	1.2	7.9685	0.8	7.9811	0.1	-
Japan	(Y)	194.634	-0.3020	577 - 691	195.830	194.577	193.849	4.8	192.404	4.6	186.534	4.2	132.3
Kuwait	(Kuwaiti D	0.5070	-0.0014	067 - 072	0.5092	0.5056	0.5061	2.0	0.5049	1.7	0.505	0.4	-
Malaysia	(M$)	6.5972	-0.0194	964 - 979	6.6265	6.5781	6.5896	1.4	6.5805	1.0	6.574	0.4	-
New Zealand	(NZ$)	2.5789	-0.0078	770 - 807	2.6041	2.5754	2.5838	-2.3	2.5948	-2.5	2.6458	-2.6	108.2
Philippines	(Peso)	97.3865	-0.5125	451 - 280	98.3344	97.1957	97.551	-2.0	97.9591	-2.4	100.336	-3.0	-
Saudi Arabia	(SR)	6.5119	-0.0181	110 - 129	6.5410	6.4921	6.5062	1.1	6.5009	0.7	6.5004	0.2	-
Singapore	(S$)	2.9532	-0.0038	516 - 548	2.9652	2.9516	2.9465	2.7	2.9344	2.5	2.8884	2.2	-
South Africa	(R)	12.0016	+0.0443	916 - 117	12.0846	11.8738	12.0252	-2.4	12.0759	-2.5	12.3414	-2.8	-
South Korea	(Won)	1830.72	-1.8900	964 - 180	1838.07	1826.21	1828.73	1.3	1825.83	1.1	1817.36	0.7	-
Taiwan	(T$)	55.7201	-0.1176	050 - 352	55.9971	55.5911	55.5991	2.6	55.3539	2.6	54.2786	2.6	-
Thailand	(Bt)	73.0811	+0.3860	467 - 156	73.4530	72.7210	73.2131	-2.2	73.1645	-0.5	72.8501	0.3	-
U A E	(Dirham)	6.3765	-0.0187	754 - 776	6.4052	6.3582	6.3691	1.4	6.3613	1.0	6.3587	0.3	-

Bid/offer spreads in the Pound Spot table show only the last three decimal places. New Sterling ERI calculated by the Bank of England. Base 2005 = 100. Other Indices Base average 1990 = 100. Indices rebased 1/2/95.

Fig. 12.1 Pound spot and forward against the pound

- **Forward rates:** prices on contracts struck for settlement one month, three months or one year ahead, or prices implied by current interest rates; and the annualised interest rate differential between the two countries that implies. Forward currency rates and interest rates are intimately connected. A bank given an order to supply dollars against pounds in three months' time will in theory (out of simple prudence) purchase the dollars at once and leave them on deposit for three months. If dollars are yielding less than pounds, it will lose interest by switching from pounds to dollars. It

naturally passes this cost on to the customer by charging more for three months dollars than it would for spot dollars. The forward dollars are sold at a premium: the buyer receives fewer dollars per pound. The curve of forward rates, at a premium (the currency units cost more forward, that is, the buyer receives fewer per pound the longer forward they are purchased) or a discount, is essentially determined by the interest rates available for deposit of these currencies relative to sterling. The lower the interest rate available, the higher the effective cost of buying that currency in advance, and this is reflected in the forward rates.

- **Bank of England index:** the relative trade-weighted position of currencies against the pound compared with a base value of January 2005 = 100. Calculated by the Bank of England, the index is not a monetary value, but a measure of the strength or weakness of the pound against other currencies. Similar indices for other big countries are carried in a table in the newspaper and are called effective index rates.
- **SDRs:** the Special Drawing Rights (SDR) of the International Monetary Fund (IMF), the units in which the IMF accounts are dominated. This is a currency basket made up of a predetermined amount of different currencies. Its composite character means that this currency substitute is less volatile than the individual units, and it is being used to an increasing extent for commercial purposes.

Using the information

The global foreign exchange market, the huge size of which dwarfs every other international financial market, has always presented technical difficulties for institutions seeking end-of-day rates that are authoritative and consistent. The market functions around the clock in virtually every country and knows no limitations such as fixed trading hours or any obligation to report "closing" rates. Until 1992, no single, consistent, set of forex rates had gained universal acceptance, with the result that the various reference sources used by the investment industry and the wider business community sometimes varied substantially. This problem was compounded when market conditions were volatile.

The rates shown in this and other *Financial Times* currency tables use data drawn from the WM/Reuters Closing Spot Rates. Developed by the two companies in consultation with leading London financial market practitioners, these now set a daily global standard for the rates required for index calculation, investment management and portfolio valuation. A single suite of rates allows accurate comparisons between competing indices and competing funds. Users of rates for commercial contracts and transactions also benefit from access to a consistent set of data, drawn from the market at a precisely fixed time and rigorously screened to exclude anomalous quotes.

The WM Company calculates and publishes a daily fixing based on market rates derived from Reuters' forex reporting system, and covering around 70 currencies. At short intervals before and after 4pm London time, representative bid, offer and mid-rates against the US dollar are selected from a wide range of contributing banks and forex dealers. Spot rates for all currencies against sterling are then calculated as cross-rates from

the dollar parities, reflecting forex market practice. The choice of 4pm as the reference point results from research that suggests that this time not only captures a far larger selection of timely quotes from continental European contributors, but also reflects more accurately the peak trading period for the London and New York markets.

It is possible that by the time the rates are consulted, the markets may have moved quite sharply. The rates in the newspaper cannot guarantee to be up to the minute; what they do provide is a daily record of the market's activities for reference purposes. The rates are frequently used by exporters and importers striking contracts in more than one currency at an agreed published rate.

Businesses frequently need to hedge against currency risk. Typically, a UK business with significant dollar income might sell dollars forward at a particular rate. This protects it against the dollar's weakening (though it also means gains from its strengthening would be missed), but more importantly makes the exchange rate predictable for that company to aid planning.

International investors too are exposed to currency risk. While investing in foreign equities naturally exposes an investor to the currencies in which they are denominated, exposure can also be achieved by investing in those currencies as assets in their own right. The markets for exchanging sterling, dollars, euros and yen need not only be a means of switching between different national equity markets. They can also be a way to enhance total portfolio returns, to speculate on future shifts in exchange rates or, for the more risk-averse investor, to hedge bets through interest rate and currency diversification.

For the global investor balancing an overall portfolio of equities, bonds and cash, it may be wise to explore the opportunities for holding the cash portion in savings accounts or money market funds that are not denominated in the base currency. Interest rate differentials between countries mean that banks and fund managers elsewhere might be offering better returns. And if differentials get wider, there may be currency appreciation benefits as well: on the whole, higher rates in one place will attract more buyers of the currency driving up its value.

Another way to get currency exposure is through managed currency funds. These are generally run by international fund management companies, are often located in the Channel Islands for obvious tax advantages, and operate in a similar way to unit and investment trusts: investors buy units in the fund and its managers pursue the best returns they can by investing in the appropriate cash and currency markets. Currency fund data are on the *Financial Times* managed funds service pages discussed in Chapter 10.

Just like trusts, the precise markets in which the funds invest vary considerably and most companies have a good selection from which to choose. Some might be focused on a single currency, investing in short-term money market deposits in its country of origin. Others are multi-currency accounts, perhaps using sterling or the dollar as the point of reference, and moving in and out of other currencies in anticipation of advantageous exchange rate movements. Typically, decisions will be made on the basis of assessing the relevant fundamental economic data; sometimes, they might be based on technical analysis of the past patterns of currency fluctuations.

The dollar spot and forward

The dollar has long been the dominant currency in world trade and the United States has often been able to pay for its imports with dollars. Given that fact and the persistent US current account deficit, the country is consistently exporting dollars, which then move around world markets and economies. Hence the importance of the dollar spot and forward rates published on ft.com (see Figure 12.2). The table shows:

FT.com Data available at www.ft.com/marketsdata

DOLLAR SPOT FORWARD AGAINST THE DOLLAR

Jul 8		Closing mid-point	Change on day	Bid/offer spread	Day's Mid high	Day's Mid low	One month Rate	One month %PA	Three months Rate	Three months %PA	One year Rate	One year %PA	J.P. Morgan Index
Europe													
Czech Rep.	(Koruna)	25.2655	-0.0473	468 - 841	25.4670	25.1980	25.2304	1.7	25.148	1.9	24.708	2.2	-
Denmark	(DKr)	6.2470	+0.0096	461 - 480	6.2782	6.2199	6.2404	1.3	6.2247	1.4	6.1362	1.8	107.7
Hungary	(Forint)	207.286	-0.1610	114 - 459	208.460	206.410	207.911	-3.6	208.896	-3.1	212.491	-2.5	-
Norway	(NKr)	6.6018	-0.0064	992 - 043	6.6374	6.5740	6.5945	1.3	6.5779	1.4	6.4989	1.6	113.5
Poland	(Zloty)	3.4118	-0.0169	090 - 147	3.4413	3.4005	3.4163	-1.6	3.4212	-1.1	3.4244	-0.4	-
Russia	(Rouble)	28.7760	-0.0390	735 - 785	28.8427	28.7735	28.801	-1.0	28.851	-1.0	29.076	-1.0	-
Slovakia	(Koruna)	32.4749	+0.0438	541 - 958	32.7200	32.3610	32.4561	0.7	32.4004	0.9	31.9939	1.5	-
Slovenia	(Tolar)	200.330	+0.0900	280 - 380	201.920	199.100	200.405	-0.4	200.455	-0.3	199.52	0.4	-
Sweden	(SKr)	7.9103	+0.0364	080 - 126	7.9381	7.8680	7.8981	1.9	7.87	2.0	7.7292	2.3	97.5
Switzerland	(SFr)	1.3021	+0.0065	018 - 025	1.3076	1.2962	1.2992	2.7	1.2928	2.9	1.2617	3.1	109.4
Turkey	(Lira)	1.3450	-0.0095	425 - 475	1.3560	1.3415	1.3585	-12.0	1.3829	-11.3	1.4852	-10.4	-
UK (0.5760)*	(£)	1.7361	-0.0051	359 - 363	1.7439	1.7310	1.7341	1.4	1.7317	1.0	1.73	0.4	98.0
Euro (0.8380)*	(Euro)	1.1933	-0.0018	932 - 935	1.1986	1.1874	1.1946	-1.3	1.1977	-1.5	1.2151	-1.8	120.6
SDR	(€)	0.69280	-	-	-	-	-	-	-	-	-	-	-
Argentina	(Peso)	2.8712	-0.0080	700 - 725	2.8800	2.8700	2.875	-1.6	2.8887	-2.4	3.005	-4.7	-
Americas													
Brazil	(R$)	2.3586	-0.0309	569 - 604	2.3850	2.3565	2.3946	-18.3	2.4546	-16.3	2.7066	-14.8	-
Canada	(C$)	1.2191	-0.0126	188 - 194	1.2307	1.2175	1.2183	0.8	1.2164	0.9	1.2074	1.0	118.5
Mexico	(New Peso)	10.7395	-0.0677	370 - 420	10.7990	10.7370	10.7995	-6.7	10.9112	-6.4	11.348	-5.7	84.7
Peru	(New Sol)	3.2500	-0.0015	495 - 505	3.2580	3.2495	3.2505	-0.2	3.2527	-0.3	3.2732	-0.7	-
USA	($)	-	-	-	-	-	-	-	-	-	-	-	92.1
Australia	(A$)	1.3466	-0.0041	463 - 470	1.3570	1.3435	-	-	-	-	-	-	118.1
Pacific/Middle East/Africa													
Hong Kong	(HK$)	7.7746	+0.0016	743 - 749	7.7760	7.7729	7.7746	0.0	7.7729	0.1	7.7521	0.3	97.5
India	(Rs)	43.5800	-0.0050	400 - 200	43.6420	43.5400	43.6487	-1.9	43.7625	-1.7	44.1575	-1.3	-
Indonesia	(Rupiah)	9805.00	+10.00	000 - 000	9831.00	9795.00	-	-	-	-	-	-	-
Iran	(Rial)	8995.00	-	400 - 600			-	-	-	-	-	-	-
Israel	(Shk)	4.5995	-0.0085	950 - 040	4.6070	4.5950	4.6003	-0.2	4.6015	-0.2	4.6133	-0.3	-
Japan	(Y)	112.110	+0.1550	090 - 130	112.600	111.800	111.79	3.4	111.105	3.6	107.825	3.8	89.6
Kuwait	(Dinar)	0.2920	-	919 - 921	0.2921	0.2919	0.2918	0.6	0.2915	0.7	0.2918	0.1	-
Malaysia	(M$)	3.8000	-	000 - 000	3.8000	3.8000	-	-	-	-	-	-	-
New Zealand	(NZ$)	1.4854	-0.0002	846 - 863	1.4957	1.4821	-	-	-	-	-	-	134.2
Philippines	(Peso)	56.0950	-0.1300	200 - 700	56.4300	56.0200	56.255	-3.4	56.568	-3.4	57.9975	-3.4	-
Saudi Arabia	(SR)	3.7509	+0.0006	508 - 510	3.7511	3.7503	3.752	-0.4	3.7541	-0.3	3.7575	-0.2	-
Singapore	(S$)	1.7010	+0.0028	003 - 018	1.7061	1.6983	1.6992	1.3	1.6945	1.5	1.6696	1.8	96.5
South Africa	(R)	6.9130	+0.0457	080 - 180	6.9475	6.8150	6.9347	-3.8	6.9735	-3.5	7.1338	-3.2	-
South Korea	(Won)	1054.50	+2.0000	400 - 500	1055.00	1051.10	1054.58	-0.1	1054.35	0.1	1050.5	0.4	102.8
Taiwan	(T$)	32.0950	+0.0265	900 - 000	32.1450	32.0850	32.0625	1.2	31.965	1.6	31.375	2.2	93.0
Thailand	(Bt)	42.0950	+0.3450	800 - 100	42.1800	41.7600	42.22	-3.6	42.25	-1.5	42.11	0.0	-
U A E	(Dirham)	3.6729	-	727 - 731	3.6731	3.6727	3.6729	0.0	3.6735	-0.1	3.6756	-0.1	-

*The closing mid-point rates for the Euro and £ are shown in brackets. The other figures in both rows are in the reciprocal form in line with market convention. †Floating rate now shown for Argentina. ‡ Official rate set by Malaysian government. The WM/Reuters rate for the valuation of capital assets is 3.80 MYR/USD. Bid/offer spreads in the Dollar Spot table show only the last three decimal places. J.P. Morgan nominal indices Dec 12 : Base average 2000 = 100. Bid, offer, mid spot rates and forward rates in both this and the pound table are derived from the WM/REUTERS 4pm (London time) CLOSING SPOT and FORWARD RATE services. Some values are rounded by the F.T.

Fig. 12.2 Dollar spot and forward against the dollar

- **Prices for the dollar spot and forward:** the equivalent range of information as the pound spot and forward.
- **Pounds and euros:** all prices, except for sterling and the euro, are quoted in terms of 2 lotys, roubles, swiss francs, etc. to the dollar. Sterling and the euro are quoted in dollars rather than in so many units to the dollar. It is important to bear this in mind when comparing forward rates and the direction of movement of the dollar against these currencies.
- **JP Morgan index:** like the Bank of England index, these figures show the relative trade-weighted position of currencies, in this case against the dollar. The base is 2000 = 100.

The euro spot and forward

Since the launch of the single European currency in January 1999, the ft.com website has carried a similar table to those for the pound and the dollar for the euro (see Figure 12.3). In addition to providing comparable information on the euro spot and forward, the table gives the "locking rates" at which the 12 members of the eurozone set their currencies. There is further discussion of the single currency and the European economy more generally in Chapter 16.

Other currencies of the world

Monday's *Financial Times* carries a table of virtually every currency of the world, showing its value in terms of four key currencies: sterling, the dollar, the euro and the yen (see Figure 12.4). The rates given are usually the average of the latest buying and selling rates. Many of these currencies are pretty obscure in terms of their role outside their countries of origin; many of them are fixed against the dollar or tied to important international or regional currencies; and many of them are very strictly controlled by the local monetary authorities, and are not openly dealt on world foreign exchange markets.

The daily newspaper carries a table with more detailed quotes for the more important currencies of the world (see Figure 12.5); while the ft.com website has a daily table showing exchange cross rates (see Figure 12.6). The latter provides the reciprocal values for nine of the world's principal trading currencies, quoted in a grid displaying each currency's value in terms of the others. Half-yearly, the newspaper shows current and six-months-earlier values for nine currencies in terms of dollars, euros and yen, as well as charts tracking the past six months' movements of the dollar against the yen and the euro and trade-weighted indices for the dollar, the yen and sterling.

A further ft.com table on the foreign exchange markets gives an indication of the volatility or riskiness of three leading currencies – sterling, the euro and the yen – against the dollar (see Figure 12.7). The first column provides the latest reading for the volatility index, followed by the change on the previous reading, the reading for a month ago and the 52-week high and low. A "RiskGrade" of 100 corresponds to the average volatility of the international equity markets during "normal market conditions". So anything less than 100 is less volatile than global stock markets. In this example, the pound has clearly been less volatile against the dollar than the euro but more volatile than the yen. And all are less volatile than standard stock market volatility.

FT.com Data available at www.ft.com/marketsdata

EURO SPOT FORWARD AGAINST THE EURO

Jul 8		Closing mid-point	Change on day	Bid/offer spread	Day's mid high	Day's mid low	One month Rate	One month %PA	Three months Rate	Three months %PA	One year Rate	One year %PA
Europe												
Czech Rep.	(Koruna)	30.1505	-0.1020	320 - 690	30.3180	30.0930	30.1404	0.4	30.1194	0.4	30.0251	0.4
Denmark	(DKr)	7.4549	+0.0002	547 - 551	7.4733	7.4441	7.4548	0.0	7.4553	0.0	7.4569	0.0
Hungary	(Forint)	247.365	-0.5650	190 - 540	248.020	247.190	248.3730	-4.9	250.1930	-4.6	258.2194	-4.4
Norway	(NKr)	7.8783	-0.0195	762 - 803	7.9018	7.8662	7.8778	0.1	7.8783	0.0	7.8975	-0.2
Poland	(Zloty)	4.0716	-0.0262	687 - 744	4.0990	4.0665	4.0812	-2.8	4.0976	-2.6	4.1614	-2.2
Russia	(Rouble)	34.3398	-0.0985	325 - 471	34.4939	34.2336	34.4060	-2.3	34.5546	-2.5	35.3332	-2.9
Slovakia	(Koruna)	38.7540	-0.0060	340 - 740	38.9621	38.6668	38.7725	-0.6	38.8057	-0.5	38.8791	-0.3
Slovenia	(Tolar)	239.064	-0.2530	974 - 154	240.850	237.980	239.4060	-1.7	240.0833	-1.7	242.4568	-1.4
Sweden	(SKr)	9.4398	+0.0293	382 - 413	9.4517	9.4094	9.4351	0.6	9.4258	0.6	9.3925	0.5
Switzerland	(SFr)	1.5540	+0.0055	537 - 542	1.5569	1.5486	1.5521	1.5	1.5485	1.4	1.5334	1.3
Turkey	(Lira)	1.6051	-0.0137	019 - 082	1.6196	1.6019	1.6229	-13.3	1.6564	-12.8	1.8048	-12.4
UK	(£)	0.6874	+0.0010	872 - 875	0.6878	0.6843	0.6889	-2.6	0.6916	-2.4	0.7024	-2.2
Argentina	(Peso)	3.4264	-0.0148	245 - 283	3.4430	3.4108	3.4345	-2.8	3.4598	-3.9	3.6517	-6.6
Americas												
Brazil	(R$)	2.8147	-0.0411	123 - 171	2.8384	2.8123	2.8607	-19.6	2.9399	-17.8	3.2891	-16.9
Canada	(C$)	1.4549	-0.0172	543 - 554	1.4687	1.4543	1.4554	-0.4	1.4568	-0.5	1.4672	-0.8
Mexico	(New Peso)	12.8160	-0.1003	114 - 206	12.9437	12.7509	12.9012	-8.0	13.0683	-7.9	13.7901	-7.6
Peru	(New Sol)	3.8784	-0.0076	773 - 795	3.8955	3.8680	3.8831	-1.5	3.8958	-1.8	3.9777	-2.6
USA	($)	1.1934	-0.0018	932 - 935	1.1986	1.1874	1.1946	-1.2	1.1977	-1.4	1.2152	-1.8
Australia	(A$)	1.6070	-0.0074	064 - 076	1.6183	1.6037	1.6117	-3.5	1.6212	-3.5	1.6639	-3.5
Pacific/Middle East/Africa												
Hong Kong	(HK$)	9.2778	-0.0122	763 - 793	9.3183	9.2316	9.2876	-1.3	9.3095	-1.4	9.4203	-1.5
India	(Rs)	52.0062	-0.0845	519 - 605	52.1870	51.7940	52.1433	-3.2	52.4139	-3.1	53.6602	-3.2
Indonesia	(Rupiah)	11700.80	-5.70	934 - 082	11746.3	11646.0	11713.16	-1.3	11743.35	-1.5	11915.04	-1.8
Iran	(Rial)	10734.20	-16.20	316 - 367			-	-	-	-	-	-
Israel	(Shk)	5.4889	-0.0184	828 - 949	5.5160	5.4763	5.4956	-1.5	5.5112	-1.6	5.6062	-2.1
Japan	(Y)	133.787	-0.0160	746 - 827	134.160	133.560	133.5436	2.2	133.0693	2.1	131.0290	2.1
Kuwait	(Kuwaiti D	0.3485	-0.0005	483 - 486	0.3500	0.3469	0.3486	-0.3	0.3492	-0.8	0.3547	-1.8
Malaysia	(M$)	4.5348	-0.0068	342 - 353	4.5544	4.5124	-	-	-	-	-	-
New Zealand	(NZ$)	1.7727	-0.0028	714 - 739	1.7839	1.7684	1.7800	-4.9	1.7946	-4.9	1.8585	-4.8
Philippines	(Peso)	66.9410	-0.2564	431 - 389	67.3540	66.6730	67.2028	-4.7	67.7510	-4.8	70.4786	-5.3
Saudi Arabia	(SR)	4.4762	-0.0060	755 - 768	4.4953	4.4533	4.4822	-1.6	4.4962	-1.8	4.5661	-2.0
Singapore	(S$)	2.0300	+0.0003	288 - 311	2.0370	2.0250	2.0299	0.1	2.0295	0.1	2.0289	0.1
South Africa	(R)	8.2496	+0.0422	426 - 566	8.2773	8.1344	8.2842	-5.0	8.3520	-5.0	8.6689	-5.1
South Korea	(Won)	1258.39	+0.49	763 - 914	1263.32	1252.71	1259.81	-1.4	1262.78	-1.4	1276.57	-1.4
Taiwan	(T$)	38.3006	-0.0261	898 - 114	38.4810	38.1330	38.3022	-0.1	38.2842	0.2	38.1269	0.5
Thailand	(Bt)	50.2341	+0.3366	099 - 583	50.4850	49.8447	50.4365	-4.8	50.6024	-2.9	51.1721	-1.9
UAE	(Dirham)	4.3831	-0.0066	823 - 838	4.4023	4.3616	4.3877	-1.3	4.3997	-1.5	4.4666	-1.9

Euro Locking Rates: Austrian Schilling 13.7603, Belgium/Luxembourg Franc 40.3399, Finnish Markka 5.94573, French Franc 6.55957, German Mark 1.95583, Greek Drachma 340.75, Irish Punt 0.787564, Italian Lira 1936.27, Netherlands Guilder 2.20371, Portuguese Escudo 200.482, Spanish Peseta 166.386. Bid/offer spreads in the Euro Spot table show only the last three decimal places. Bid, offer, mid spot rates and forward rates are derived from THE WM/REUTERS CLOSING SPOT and FORWARD RATE services. Some values are rounded by the F.T.

Fig. 12.3 Euro spot and forward against the euro

FT GUIDE TO WORLD CURRENCIES

Jul 1		£ STG	Week Change	US $	Week Change	EURO €	Week Change	YEN (x 100)	Week Change
Afghanistan	(Afghani)	76.1724	-2.1607	43.0000	-	51.4581	-0.5203	38.5080	-0.8243
Albania	(Lek)	183.203	-2.892	103.420	+1.265	123.768	+0.283	92.6163	-0.8253
Algeria	(Dinar)	130.556	-1.909	73.7000	+0.9850	88.2005	+0.3026	66.0010	-0.5117
Andorra	(Euro)	1.4802	-0.0268	0.8356	+0.0083	1	-	0.7483	-0.0084
Angola	(Readj Kwanza)	158.004	-4.485	89.1946	-0.0017	106.744	-1.077	79.8769	-1.7113
Antigua	(E Carib $)	4.7829	-0.1357	2.7000	-	3.2312	-0.0325	2.4179	-0.0518
Argentina	(Peso)(v)	5.1085	-0.1358	2.8838	+0.0050	3.4512	-0.0286	2.5825	-0.0507
Armenia	(Dram)	801.582	-22.737	452.500	-	541.507	-5.475	405.230	-8.674
Aruba	(Guilder)	3.1709	-0.0900	1.7900	-	2.1422	-0.0215	1.6030	-0.0343
Australia	(A$)	2.3582	-0.0152	1.3312	+0.0284	1.5931	+0.0182	1.1921	+0.0004
Austria	(Euro)	1.4802	-0.0268	0.8356	+0.0083	1	-	0.7483	-0.0084
Azerbaijan	(Manat)	8378.08	-236.74	4729.50	+0.50	5660.03	-56.38	4235.44	-90.20
Azores	(Euro)	1.4802	-0.0268	0.8356	+0.0083	1	-	0.7483	-0.0084
Bahamas	(Bahama $)	1.7714	-0.0503	1	-	1.1968	-0.0120	0.8955	-0.0192
Bahrain	(Dinar)	0.6678	-0.0190	0.3770	-	0.4512	-0.0045	0.3376	-0.0072
Balearic Is	(Euro)	1.4802	-0.0268	0.8356	+0.0083	1	-	0.7483	-0.0084
Bangladesh	(Taka)	112.998	-3.126	63.7885	+0.0435	76.3389	-0.7161	57.1249	-1.1829
Barbados	(Barb $)	3.5429	-0.1005	2.0000	-	2.3935	-0.0241	1.7911	-0.0383
Belarus	(Rouble)	3811.27	-106.29	2151.50	+1.00	2574.81	-24.72	1926.75	-40.33
Belgium	(Euro)	1.4802	-0.0268	0.8356	+0.0083	1	-	0.7483	-0.0084
Belize	(B $)	3.5075	-0.0995	1.9800	-	2.3696	-0.0238	1.7732	-0.0379
Benin	(CFA Fr)	970.960	-17.590	548.120	+5.470	655.957	-	490.857	-5.507
Bermuda	(Bermudian $)	1.7714	-0.0503	1	-	1.1968	-0.0120	0.8955	-0.0192
Bhutan	(Ngultrum)	76.9960	-2.2935	43.4650	-0.0600	52.0168	-0.5963	38.9245	-0.8880
Bolivia	(Boliviano)	14.3328	-0.4065	8.0910	-	9.6830	-0.0974	7.2458	-0.1551
Bosnia Herzegovina	(Marka)	2.8950	-0.0525	1.6343	+0.0163	1.9558	0.0000	1.4636	-0.0164
Botswana	(Pula) (2)	9.6642	-0.4174	5.4555	-0.0785	6.5290	-0.1607	4.8856	-0.1764
Brazil	(Real)	4.1497	-0.1937	2.3426	-0.0417	2.8035	-0.0786	2.0978	-0.0831
Brunei	(Brunei $)	2.9964	-0.0518	1.6915	+0.0182	2.0244	+0.0017	1.5148	-0.0158
Bulgaria	(Lev)	2.8950	-0.0526	1.6343	+0.0163	1.9559	0.0000	1.4636	-0.0164
Burkina Faso	(CFA Fr)	970.960	-17.590	548.120	+5.470	655.957	-	490.857	-5.507
Burma	(Kyat)	11.3727	-0.3226	6.4200	-	7.6828	-0.0777	5.7493	-0.1231
Burundi	(Burundi Fr)	1921.93	-54.52	1084.95	-	1298.41	-13.07	971.612	-20.796
Cambodia	(Riel)	7271.81	-204.45	4105.00	+1.00	4912.45	-48.46	3676.17	-77.77
Cameroon	(CFA Fr)	970.960	-17.590	548.120	+5.470	655.957	-	490.857	-5.507
Canada	(Canadian $)	2.1980	-0.0481	1.2408	+0.0078	1.4850	-0.0054	1.1112	-0.0166
Canary Is	(Euro)	1.4802	-0.0268	0.8356	+0.0083	1	-	0.7483	-0.0084
Cp. Verde	(CV Escudo)	162.796	-4.709	91.9000	-0.0500	109.977	-1.172	82.2997	-1.8073
Cayman Is	(CI $)	1.4611	-0.0415	0.8248	-	0.9871	-0.0099	0.7386	-0.0158
Cent. Afr. Rep	(CFA Fr)	970.960	-17.590	548.120	+5.470	655.957	-	490.857	-5.507
Chad	(CFA Fr)	970.960	-17.590	548.120	+5.470	655.957	-	490.857	-5.507
Chile	(Chilean Peso)	1025.05	-31.45	578.650	-1.300	692.499	-8.544	518.202	-12.281
China	(Renminbi)	14.6613	-0.4160	8.2764	-0.0001	9.9048	-0.0999	7.4118	-0.1587
Colombia	(Col Peso)	4119.77	-104.89	2325.65	+6.58	2783.22	-20.08	2082.70	-38.56
Comoros	(Fr)	728.219	-13.192	411.087	+4.098	491.968	0.000	368.143	-4.131
Congo	(CFA Fr)	970.960	-17.590	548.120	+5.470	655.957	-	490.857	-5.507
Congo (DemRep)	(Congo Fr)	751.096	-3.088	424.000	+10.000	507.423	+6.979	379.707	+1.020
Costa Rica	(Colon)	847.462	-22.491	478.400	+0.850	572.525	-4.737	428.424	-8.392
Cote d'Ivoire	(CFA Fr)	970.960	-17.590	548.120	+5.470	655.957	-	490.857	-5.507
Croatia	(Kuna)	10.8214	-0.2176	6.1087	+0.0489	7.3107	-0.0144	5.4706	-0.0723
Cuba	(Cuban Peso)(6)	1.7714	-0.0503	1.0000	-	1.1968	-0.0120	0.8955	-0.0192
Cyprus	(Cyprus £)	0.8486	-0.0152	0.4790	+0.0048	0.5733	+0.0002	0.4290	-0.0047
Czech Rep.	(Koruna)	44.3880	-0.7401	25.0574	+0.2849	29.9875	+0.0425	22.4398	-0.2197
Denmark	(Danish Krone)	11.0341	-0.1922	6.2288	+0.0662	7.4544	+0.0051	5.5781	-0.0588
Djibouti Rep	(Djib Fr)	308.233	-8.288	174.000	+0.250	208.226	-1.803	155.823	-3.107
Dominica	(E Carib $)	4.7829	-0.1357	2.7000	-	3.2312	-0.0325	2.4179	-0.0518
Dominican Rep	(D Peso)	50.2206	-1.6068	28.3500	-0.1000	33.9279	-0.4625	25.3884	-0.6349
Ecuador	(US $)	1.7714	-0.0503	1.0000	-	1.1968	-0.0120	0.8955	-0.0192
Egypt	(Egyptian £)	10.2611	-0.2934	5.7925	-0.0013	6.9322	-0.0713	5.1874	-0.1122
El Salvador	(Colon)	15.5038	-0.4398	8.7520	-	10.4740	-0.1054	7.8377	-0.1678
Equat'l Guinea	(CFA Fr)	970.960	-17.590	548.120	+5.470	655.957	-	490.857	-5.507
Eritrea	(Nakfa)	23.9146	-0.6784	13.5000	-	16.1555	-0.1633	12.0897	-0.2588
Estonia	(Kroon)	23.1604	-0.4196	13.0742	+0.1303	15.6466	-	11.7085	-0.1314
Ethiopia	(Ethiopian Birr)	15.4275	-0.4367	8.7089	+0.0005	10.4225	-0.1043	7.7992	-0.1665
Falkland Is	(Falk £)	1	-	0.5645	+0.0156	0.6756	+0.0121	0.5055	+0.0034
Faroe Is	(Danish Krone)	11.0341	-0.1922	6.2288	+0.0662	7.4544	+0.0051	5.5781	-0.0588
Fiji Is	(Fiji $)	3.0168	-0.0578	1.7030	+0.0152	2.0381	-0.0020	1.5251	-0.0187
Finland	(Euro)	1.4802	-0.0268	0.8356	+0.0083	1	-	0.7483	-0.0084
France	(Euro)	1.4802	-0.0268	0.8356	+0.0083	1	-	0.7483	-0.0084
Fr. Cty/Africa	(CFA Fr)	970.960	-17.590	548.120	+5.470	655.957	-	490.857	-5.507
Fr. Guiana	(Euro)	1.4802	-0.0268	0.8356	+0.0083	1	-	0.7483	-0.0084
Fr. Pacific Is	(CFP Fr)	176.516	-3.198	99.6449	+0.9933	119.250	-	89.2356	-1.0014
Gabon	(CFA Fr)	970.960	-17.590	548.120	+5.470	655.957	-	490.857	-5.507
Gambia	(Dalasi)	50.3095	-1.3815	28.4000	+0.0250	33.9879	-0.3120	25.4332	-0.5215
Georgia	(Lari)	3.2141	-0.0864	1.8144	+0.0026	2.1714	-0.0187	1.6249	-0.0324

Euro Locking Rates: Austrian Schilling 13.7603, Belgium/Luxembourg Franc 40.3399, Finnish Markka 5.94573, French Franc 6.55957, German Mark 1.95583,
Floating rate. (1) Official rate replaced Auction rate on May 20th, 2005.(2) Botswanan Pula devalued by 12% on May 30th, 2005. (3) New Iraqi Dinar based o

Fig. 12.4 FT guide to world currencies

CURRENCIES

www.ft.com/currencydata

Aug 17	Currency	DOLLAR Closing mid	DOLLAR Day's change	EURO Closing mid	EURO Day's change	POUND Closing mid	POUND Day's change
Argentina	(Peso)	2.8942	+0.0080	3.5612	+0.0034	5.2382	+0.0159
Australia	(A$)	1.3109	+0.0086	1.6130	+0.0078	2.3725	+0.0162
One Month		-	-	1.6177	+0.0076	2.3746	+0.0162
One Year		-	-	1.6684	+0.0085	2.3995	+0.0167
Bahrain	(Dinar)	0.3770	-	0.4639	-0.0009	0.6823	+0.0001
Bolivia	(Boliviano	8.0735	-	9.9341	-0.0177	14.6119	+0.0037
Brazil	(R$)	2.3485	+0.0017	2.8897	-0.0030	4.2504	+0.0042
Canada	(C$)	1.2080	+0.0088	1.4863	+0.0081	2.1862	+0.0164
One Month		1.2069	+0.0087	1.4869	+0.0081	2.1826	+0.0164
Three Month		1.2049	+0.0087	1.4890	+0.0083	2.1768	+0.0163
One Year		1.1955	+0.0085	1.5012	+0.0084	2.159	+0.0161
Chile	(Peso)	532.250	-2.0000	654.907	-3.6360	963.293	-3.3790
Colombia	(Peso)	2306.05	+2.20	2837.48	-2.36	4173.61	+5.02
Costa Rica	(Colon)	482.650	-	593.877	-1.0620	873.524	+0.2170
Czech Rep.	(Koruna)	23.9018	+0.1055	29.4100	+0.0775	43.2587	+0.2017
One Month		23.8648	+0.1063	29.4009	+0.0774	43.1575	+0.2042
One Year		23.3343	+0.1020	29.3017	+0.0828	42.141	+0.1964
Denmark	(DKr)	6.0618	+0.0087	7.4588	-0.0026	10.9710	+0.0184
One Month		6.0543	+0.0088	7.4588	-0.0028	10.9489	+0.0190
Three Month		6.036	+0.0081	7.4592	-0.0024	10.9047	+0.0168
One Year		5.9413	+0.0072	7.4607	-0.0026	10.7299	+0.0160
Egypt	(Egypt £)	5.7725	-	7.1028	-0.0127	10.4474	+0.0026
Estonia	(Kroon)	12.7160	+0.0226	15.6465	-	23.0142	+0.0468
Hong Kong	(HK$)	7.7717	-0.0005	9.5627	-0.0177	14.0656	+0.0025
One Month		7.7717	-	9.5746	-0.0176	14.0546	+0.0037
Three Month		7.7712	+0.0009	9.6035	-0.0149	14.0394	+0.0044
One Year		7.7572	+0.0050	9.7410	-0.0088	14.0092	+0.0130
Hungary	(Forint)	198.196	+0.4920	243.870	+0.1700	358.705	+0.9790
One Month		198.716	+0.4820	244.8134	+0.1466	359.361	+0.9700
One Year		201.906	+0.6920	253.5403	+0.4762	364.636	+1.3550
India	(Rs)	43.4950	-0.0275	53.5184	-0.1296	78.7194	-0.0302
One Month		43.53	-0.0300	53.6280	-0.1351	78.7202	-0.0326
One Year		43.9025	-0.0375	55.1299	-0.1328	79.2865	-0.0447
Indonesia	(Rupiah)	9900.00	-10.00	12181.50	-34.10	17917.50	-13.70
One Month		-	-	12196.58	-34.65	17903.29	-13.19
One Year		-	-	12431.78	-31.88	17879.09	-12.91
Iran	(Rial)	9002.00	+5.00	11076.50	-13.70	16292.30	+13.10
Israel	(Shk)	4.4885	-0.0373	5.5229	-0.0558	8.1235	-0.0654
Japan	(¥)	109.610	+0.3450	134.870	+0.1840	198.378	+0.6740
One Month		109.265	+0.3550	134.6115	+0.1918	197.593	+0.6940
Three Month		108.54	+0.3200	134.1311	+0.1699	196.088	+0.6140
One Year		105.13	+0.2900	132.0217	+0.1626	189.873	+0.5890
Kenya	(Shilling)	75.7500	-0.1000	93.2066	-0.2900	137.096	-0.1470
Kuwait	(Dinar)	0.2920	-	0.3593	-0.0007	0.5284	-
One Month		0.292	-	0.3597	-0.0008	0.528	-
One Year		0.2921	-	0.3669	-0.0005	0.5275	+0.0001
Malaysia	(M$)	3.7680	+0.0025	4.6363	-0.0053	6.8195	+0.0062
Mexico	(New Peso)	10.6088	+0.0267	13.0536	+0.0096	19.2003	+0.0532
One Month		10.6668	+0.0239	13.1412	+0.0055	19.2899	+0.0487
Three Month		10.7743	+0.0282	13.1347	+0.0128	19.4649	+0.0553
One Year		11.1768	+0.0197	14.0350	+0.0029	20.1849	+0.0416
New Zealand	(NZ$)	1.4240	+0.0018	1.7522	-0.0009	2.5772	+0.0040
One Month		-	-	1.7594	-0.0011	2.5825	+0.0037
One Year		-	-	1.8363	-0.0002	2.641	+0.0048
Nigeria	(Naira)	137.850	+0.1500	169.618	-0.1180	249.488	+0.3340
Norway	(NKr)	6.4403	-0.0137	7.9245	-0.0310	11.6561	-0.0217
One Month		6.4318	-0.0134	7.9239	-0.0309	11.6315	-0.0208
Three Month		6.413	-0.0143	7.9251	-0.0308	11.5859	-0.0231
One Year		6.3303	-0.0146	7.9493	-0.0306	11.4326	-0.0227
Pakistan	(Rupee)	59.6650	-0.0050	73.4148	-0.1375	107.985	+0.0180
Peru	(New Sol)	3.2536	+0.0012	4.0035	-0.0056	5.8887	+0.0038
Philippines	(Peso)	55.9300	+0.1050	68.8191	+0.0064	101.225	+0.2150
One Month		56.091	+0.1170	69.1029	+0.0180	101.436	+0.2390
Three Month		56.378	+0.1255	69.6712	+0.0398	101.853	+0.2490
One Year		57.744	+0.1610	72.5112	+0.0899	104.284	+0.3210
Poland	(Zloty)	3.2625	+0.0104	4.0144	+0.0056	5.9047	+0.0202
One Month		3.2656	+0.0103	4.0231	+0.0053	5.9055	+0.0202
One Year		3.2729	+0.0125	4.1098	+0.0092	5.9108	+0.0241
Romania	(Leu)	2.9014	+0.0133	3.5700	+0.0100	5.2511	+0.0254
Russia	(Rouble)	28.4700	+0.0150	35.0309	-0.0442	51.5264	+0.0400
Saudi Arabia	(SR)	3.7503	-	4.6146	-0.0082	6.7875	+0.0017
One Month		3.7516	-	4.6219	-0.0084	6.7844	+0.0019
One Year		3.7572	-0.0002	4.7181	-0.0075	6.7855	+0.0018
Singapore	(S$)	1.6584	+0.0020	2.0407	-0.0011	3.0015	+0.0044
One Month		1.656	+0.0020	2.0402	-0.0011	2.9948	+0.0046
One Year		1.6238	+0.0018	2.0391	-0.0009	2.9325	+0.0040
Slovakia	(Koruna)	31.3402	+0.1602	38.5625	+0.1285	56.7210	+0.3039
One Month		31.3207	+0.1602	38.5864	+0.1272	56.6407	+0.3052
One Year		30.8697	+0.1942	38.7641	+0.1840	55.7497	+0.3668
Slovenia	(Tolar)	194.560	+0.1050	239.396	-0.2990	352.125	+0.2780
South Africa	(R)	6.4722	+0.0420	7.9638	+0.0375	11.7138	+0.0789
One Month		6.4924	+0.0419	7.9985	+0.0370	11.7411	+0.0789
Three Month		6.5279	+0.0439	8.0672	+0.0409	11.7936	+0.0819
One Year		6.6607	+0.0457	8.3641	+0.0445	12.0292	+0.0862
South Korea	(Won)	1018.05	+1.65	1252.66	-0.21	1842.52	+3.45
One Month		1017.95	+1.65	1254.09	-0.26	1840.88	+3.50
Three Month		1017.40	+1.60	1257.29	-0.10	1838.05	+3.30
One Year		1012.55	+1.65	1271.49	+0.10	1828.64	+3.52
Sweden	(SKr)	7.5820	+0.0221	9.3293	+0.0105	13.7223	+0.0433
One Month		7.569	+0.0225	9.3249	+0.0106	13.688	+0.0443
Three Month		7.5388	+0.0208	9.3163	+0.0101	13.6197	+0.0404
One Year		7.399	+0.0210	9.2912	+0.0118	13.3624	+0.0416
Switzerland	(SFr)	1.2585	-0.0008	1.5485	-0.0038	2.2776	-0.0010
One Month		1.2554	-0.0007	1.5466	-0.0038	2.2702	-0.0008
Three Month		1.2486	-0.0010	1.5429	-0.0039	2.2556	-0.0015
One Year		1.2177	-0.0007	1.5291	-0.0033	2.1991	-0.0008
Taiwan	(T$)	32.0590	+0.0680	39.4470	+0.0133	58.0219	+0.1374
One Month		32.049	+0.0980	39.4836	+0.0487	57.9578	+0.1931
One Year		31.289	+0.0930	39.2907	+0.0560	56.507	+0.1843
Thailand	(Bt)	41.2775	+0.1395	50.7899	+0.0811	74.7061	+0.2710
One Month		41.3325	+0.1495	50.9207	+0.0914	74.7464	+0.2910
One Year		41.3425	+0.1745	51.9152	+0.1388	74.6634	+0.3368
Tunisia	(Dinar)	1.3096	+0.0019	1.6115	-0.0005	2.3703	+0.0041
Turkey	(Lira)	1.3718	+0.0203	1.6879	+0.0220	2.4826	+0.0372
U A E	(Dirham)	3.6729	-	4.5193	-0.0081	6.6474	+0.0017
One Month		3.6731	-	4.5252	-0.0083	6.6425	+0.0019
One Year		3.6752	-	4.6151	-0.0071	6.6373	+0.0020
UK (0.5525)*	(£)	1.8098	+0.0004	0.6799	-0.0014	-	-
One Month		1.8084	+0.0005	0.6813	-0.0014	-	-
Three Month		1.8066	+0.0004	0.6840	-0.0013	-	-
One Year		1.806	+0.0006	0.6953	-0.0013	-	-
Uruguay	(Peso)	24.0850	-0.1000	29.6354	-0.1763	43.5902	-0.1702
USA	($)	-	-	1.2305	-0.0022	1.8098	+0.0004
One Month		-	-	1.2320	-0.0022	1.8084	+0.0005
Three Month		-	-	1.2358	-0.0020	1.8066	+0.0004
One Year		-	-	1.2557	-0.0020	1.806	+0.0006
Venezuela †	(Bolivar)	2609.65	-24.76	3211.04	-36.26	4723.07	-43.63
Vietnam	(Dong)	15866.00	+2.50	19522.30	-31.80	28715.10	+11.70
Euro (0.8127)*	(Euro)	1.2305	-0.0022	-	-	1.4709	+0.0030
One Month		1.232	-0.0023	-	-	1.4679	+0.0031
Three Month		1.2358	-0.0021	-	-	1.462	+0.0029
One Year		1.2558	-0.0019	-	-	1.4382	+0.0027
SDR	-	0.67980	-	0.83655	-0.0007	1.230500	-

Rates are derived from WM/Reuters at 4pm (London time). *The closing mid-point rates for the Euro and £ against the $ are shown in brackets. The other figures in the dollar column of both the Euro and Sterling rows are in the reciprocal form in line with market convention. †Official rate set by Venezuelan government is 2150 mid per USD; the WM/Reuters rate is for the valuation of capital assets. Some values are rounded by the F.T. The exchange rates printed in this table are also available on the internet at http://www.FT.com.

Euro Locking Rates: Austrian Schilling 13.7603, Belgium/Luxembourg Franc 40.3399, Finnish Markka 5.94573, French Franc 6.55957, German Mark 1.95583, Greek Drachma 340.75, Irish Punt 0.787564, Italian Lira 1936.27, Netherlands Guilder 2.20371, Portuguese Escudo 200.482, Spanish Peseta 166.386.

Fig. 12.5 Currencies

FT.com Data available at www.ft.com/marketsdata

EXCHANGE CROSS RATES

Jul 8		C$	DKr	€	Y	NKr	SKr	SFr	£	$
Canada	(C$)	1	5.124	0.687	91.96	5.415	6.489	1.068	0.472	0.820
Denmark	(DKr)	1.952	10	1.341	179.5	10.57	12.66	2.084	0.922	1.601
Euro	(€)	1.455	7.455	1	133.8	7.878	9.440	1.554	0.687	1.193
Japan	(Y)	1.087	5.572	0.747	100	5.889	7.056	1.161	0.514	0.892
Norway	(NKr)	1.847	9.463	1.269	169.8	10	11.98	1.972	0.873	1.515
Sweden	(SKr)	1.541	7.897	1.059	141.7	8.346	10	1.646	0.728	1.264
Switzerland	(SFr)	0.936	4.798	0.644	86.10	5.070	6.075	1	0.442	0.768
UK	(£)	2.116	10.85	1.455	194.6	11.46	13.73	2.261	1	1.736
USA	($)	1.219	6.247	0.838	112.1	6.602	7.910	1.302	0.576	1

Danish Kroner, Norwegian Kroner and Swedish Kronor per 10; Yen per 100. Source: FT derived from WM Reuters.

Fig. 12.6 Exchange cross-rates

FT.com Data available at www.ft.com/marketsdata

RISKGRADE™ VOLATILITY - FX markets

Currencies vs $	Jul 7	Day change	Month ago	52 wk high	52 wk low
Euro €	42	-1	39	51	36
£ Sterling	40	2	35	48	34
Yen	37	-1	39	55	35

RiskGrades are calculated daily by RiskMetrics. They are designed to measure the riskiness of today's global market returns. A RiskGrade of 100 corresponds to the average volatility of the international equity markets during normal market conditions. Data shown is one day in arrears. More information is available at www.riskgrades.com

Fig. 12.7 RiskGrade volatility: FX markets

The money markets

The money markets are the markets in deposits and short-term financial instruments, places for money that is available for short periods and where money can be converted into longer period loans. It is a wholesale market for professionals only, though its operations have an impact on the price of money and liquidity generally. Its main functions are:

- Banks that are temporarily short of funds can borrow while those with a surplus can put it to work.

- It provides a source of liquidity.
- Banks can borrow wholesale funds as can companies and governments.
- It makes it possible to correct imbalances between the banking system as a whole and the government.

Financial Times reports describe monetary conditions and central bank money market intervention in a number of countries. The choice of market centres will depend on the amount of activity in each on the preceding day.

UK interest rates

The UK interest rates table (see Figure 12.8) provides details of interest rates for overnight deposits and other short-term instruments. These are representative interest rates taken by the newspaper from major market participants near the end of the London trading day, showing:

UK INTEREST RATES

Aug 9	Over-night	7 days notice	One month	Three months	Six months	One year
Interbank Sterling	$4\frac{3}{16}$ - $4\frac{11}{32}$	$4\frac{29}{32}$ - $4\frac{15}{32}$	$4\frac{29}{32}$ - 4½	$4\frac{29}{32}$ - 4½	$4\frac{3}{16}$ - $4\frac{15}{32}$	$4\frac{3}{16}$ - $4\frac{15}{32}$
BBA Sterling	$4\frac{21}{32}$	$4\frac{21}{32}$	4⅝	4⅝	$4\frac{3}{16}$	$4\frac{3}{16}$
Sterling CDs			$4\frac{21}{32}$ - 4⅝	$4\frac{29}{32}$ - $4\frac{3}{16}$	4½ - $4\frac{15}{32}$	$4\frac{15}{32}$ - $4\frac{7}{16}$
Treasury Bills			$4\frac{11}{16}$ - $4\frac{3}{16}$	4⅝ - 4½		
Bank Bills			$4\frac{21}{32}$ - $4\frac{29}{32}$	4⅝ - 4½		
†Local authority deps.		$4\frac{3}{16}$ - 4½	$4\frac{3}{16}$ - 4½	$4\frac{3}{16}$ - 4½	4½ - $4\frac{7}{16}$	4½ - $4\frac{7}{16}$
Discount Market deps	$4\frac{23}{32}$ - $4\frac{3}{16}$	$4\frac{29}{32}$ - $4\frac{17}{32}$				

Av. tndr rate of discount Jul 22, 4.4489pc. ECGD fixed rate Stlg. Export Finance. make up day Jun 30, 2005. Reference rate for period Jun 1, 2005 to Jun 30, 2005, Scheme IV & V 4.847%. Finance House Base Rate 5pc for Mar 2005

UK clearing bank base lending rate 4½ per cent from Aug 4 , 2005 Source: Reuters, RBS, †Tradition (UK) Ltd.

	Up to 1 month	1-3 month	3-6 months	6-9 months	9-12 months
Certs of Tax dep. (£100,000)	1¼	3¾	3¾	3¾	3¾

Certs of Tax dep. under £100,000 is 1¼pc. Deposits withdrawn for cash ½pc.

Fig. 12.8 UK interest rates

- **Loan period:** rates are given for a number of maturities, varying from overnight to one year, for a number of different instruments.
- **Interbank sterling:** this is a measure of short-term swings in rates, a constantly changing indicator of the cost of money in large amounts for banks themselves. For each maturity date, the first figure is the offer or lending rate, and the second figure the bid or borrowing rate. The interbank market exists to allow banks to lend and borrow surplus liquidity in substantial amounts; in practice, very large company depositors should be able to deal at or near interbank rates when they are placing money in the market. Rates for different maturities produce the yield curve; when interest rates might drop, the yield curve will be negative.

- **Sterling CDs:** certificates of deposit issued in sterling by UK banks and in which a secondary market exists. These carry a slightly lower rate than interbank loans.
- **Treasury and bank bills:** the rates at which various bills of exchange are discounted. Bills of exchange are securities issued by companies, banks or governments (in this case, the Treasury and banks) with a fixed maturity value. Discounting them means buying them at a discount from face value, with the discount rate being the difference between purchase price and face value as a percentage of the face value.
- **Deposits:** money lent to local authorities (offered rate for deposits), as well as the rates at which discount houses (the institutions with which the Bank of England carries out the bulk of its operations in the money market) accept the secured money from banks. Banks are required to maintain a certain amount of cash with the discount market, and these rates are generally below interbank levels.

World interest rates

The market rates table in Figure 12.9 lists representative interest rates from major money markets outside London, showing:

INTEREST RATES www.ft.com/bonds&rates

MARKET RATES

Jul 6	Over night	Day	Change Week	Month	One month	Three months	Six months	One year
US$ Libor*	3.30000	-0.001	+0.034	+0.264	3.34000	3.56000	3.77438	3.99000
Euro Libor*	2.09375	+0.001	-0.025	+0.010	2.10625	2.11563	2.12550	2.14625
£ Libor*	4.84750	-0.002	-0.106	+0.048	4.78500	4.70625	4.63500	4.53875
Swiss Fr Libor*	0.77500	+0.028	+0.065	+0.060	0.73000	0.75000	0.76000	0.78000
Yen Libor*	0.03625	-	-0.001	-0.001	0.04000	0.05563	0.06625	0.09000
US$ CDs	-	-	-	-	3.27	3.48	3.68	3.92
Euro CDs	2.065	-	-0.030	+0.010	2.090	2.100	2.160	2.090
US o'night repo	3.13	-0.050	-0.020	+0.150				
Fed Funds eff	3.27	-0.090	+0.100	+0.310				
US 3m Bills	3.13	+0.020	+0.070	+0.170				
SDR int rate	2.56	-	+0.020	+0.060				
EONIA	2.08	-	-0.010	+0.100				
EURONIA	2.0755	-0.014	-0.014	+0.045				
SONIA	4.7570	+0.101	+0.036	+0.161				

* Libor rates come from BBA (see www.bba.org.uk) and are fixed at 11am UK time. Other data sources: US $ & Euro CDs: dealers; SDR int rate: IMF; EONIA: ECB; EURONIA & SONIA: WMBA.

Jul 6	Short term	7 days notice	One month	Three months	Six months	One year
Euro	$2\frac{3}{32}$ - $2\frac{1}{32}$	$2\frac{1}{8}$ - $2\frac{1}{32}$	$2\frac{1}{8}$ - $2\frac{1}{16}$	$2\frac{1}{8}$ - $2\frac{1}{16}$	$2\frac{7}{32}$ - $2\frac{3}{32}$	$2\frac{1}{8}$ - $2\frac{1}{32}$
Danish Krone	$2\frac{7}{32}$ - $2\frac{1}{32}$	$2\frac{5}{32}$ - $2\frac{1}{32}$	$2\frac{5}{32}$ - $2\frac{1}{32}$	$2\frac{5}{32}$ - $2\frac{1}{32}$	$2\frac{3}{16}$ - $2\frac{1}{32}$	$2\frac{7}{32}$ - $2\frac{1}{8}$
Sterling	$4\frac{3}{4}$ - $4\frac{11}{16}$	$4\frac{7}{8}$ - $4\frac{23}{32}$	$4\frac{3}{4}$ - $4\frac{23}{32}$	$4\frac{21}{32}$ - $4\frac{5}{8}$	$4\frac{5}{8}$ - $4\frac{9}{16}$	$4\frac{1}{2}$ - $4\frac{15}{32}$
Swiss Franc	$\frac{25}{32}$ - $\frac{11}{16}$	$\frac{27}{32}$ - $\frac{11}{16}$	$\frac{23}{32}$ - $\frac{11}{16}$	$\frac{3}{4}$ - $\frac{11}{16}$	$\frac{3}{4}$ - $\frac{11}{16}$	$\frac{25}{32}$ - $\frac{11}{16}$
Canadian Dollar	$2\frac{17}{32}$ - $2\frac{1}{16}$	$2\frac{9}{16}$ - $2\frac{25}{32}$	$2\frac{29}{32}$ - $2\frac{1}{2}$	$2\frac{21}{32}$ - $2\frac{9}{16}$	$2\frac{25}{32}$ - $2\frac{21}{32}$	3 - $2\frac{7}{8}$
US Dollar	$3\frac{1}{4}$ - $3\frac{3}{16}$	$3\frac{11}{32}$ - $3\frac{1}{4}$	$3\frac{3}{8}$ - $3\frac{5}{32}$	$3\frac{29}{32}$ - $3\frac{1}{2}$	$3\frac{25}{32}$ - $3\frac{23}{32}$	4 - $3\frac{29}{32}$
Japanese Yen	$\frac{1}{32}$ - $\frac{1}{16}$	$\frac{3}{32}$ - $\frac{1}{16}$	$\frac{1}{32}$ - $\frac{1}{32}$	$\frac{1}{16}$ - $\frac{1}{32}$	$\frac{1}{16}$ - $\frac{1}{32}$	$\frac{3}{32}$ - $\frac{1}{32}$
Singapore $	$1\frac{3}{4}$ - $1\frac{5}{8}$	2 - $1\frac{3}{4}$	2 - $1\frac{3}{4}$	$2\frac{1}{16}$ - $1\frac{13}{16}$	$2\frac{1}{8}$ - $1\frac{7}{8}$	$2\frac{5}{32}$ - $1\frac{29}{32}$

Source: Reuters. Short term rates are call for the US Dollar and Yen, others: two days' notice.

Fig. 12.9 Market rates

- **Loan period:** current overnight, day, weekly and one-, three-, six- and 12-month rates in the eurozone, Switzerland, Japan and the United States.
- **LIBOR:** LIBOR stands for the London Interbank Offered Rate and is the rate of interest at which banks could borrow funds (in different currencies) from other banks, in marketable size, in the London interbank market. These BBA (British Bankers' Association) quotes are the most widely used benchmark or reference rate for short-term interest rates.
- **CDs:** rates are also quoted for US-dollar and euro-linked certificates of deposit. These are, in essence, marketable bank deposits: a depositor who buys a three-month CD from a bank may sell it to a third party if liquidity is needed before the maturity date. Because CDs can be sold on, unlike ordinary deposits, they carry slightly lower interest rates.
- **US rates:** two overnight rates paid on funds lent between the member banks of the US Federal Reserve System, indicators of the day-to-day cost of money in the United States; an indicator of the yield on US government securities, three-month Treasury bills; and a rate on Special Drawing Rights.
- **EONIA:** this benchmark (the Euro Overnight Index Average) indicates rates for overnight unsecured lending in the eurozone interbank market. It is computed with the help of the European Central Bank.
- **EURONIA:** this is the London equivalent of EONIA, the average interest rate, weighted by volume, of all unsecured overnight euro deposit trades arranged by eight money brokers in London.
- **International money rates:** interest rates on deposits in various currencies in markets outside their countries of origin, the so-called Euromarket rates. Outside the United States, for example, banks are not bound by any considerations of reserve requirements on their holding of dollars. These then are free market rates at which banks lend and borrow money to and from each other. Interest rates are quoted for eight currencies.

The international money rates follow but do not necessarily match domestic rates. The key rate is the LIBOR, the heart of the interbank market, which is in turn the core of the money markets.

Official rates

Another table relevant to both the money markets and the bond markets and listed on the Market Data page, covers US, eurozone, UK, Japanese and Swiss official interest rates (see Figure 12.10). These are the indicative rates set by central bank monetary policy-makers like the Bank of England's Monetary Policy Committee, the Federal Open Market Committee of the US Federal Reserve Board and the Governing Council of the European Central Bank.

Interest rates obviously play a critical role binding together the world's many financial markets, and strongly influencing companies' costs of borrowing and investors' likely

OFFICIAL RATES

Jul 6	Rate	Current	Since	Last	Mth ago	Year ago
US	Fed funds	3.25	30-06-05	3.00	3.00	1.25
US	Prime	6.25	30-06-05	6.00	6.00	4.25
US	Broker Loan	5.00	30-06-05	4.75	4.75	3.00
Euro	Repo	2.00	05-06-03	2.50	2.00	2.00
UK	Repo	4.75	05-08-04	4.50	4.75	4.50
Japan	O'night call	0.00	19-03-01	0.15	0.00	0.00
Switzerland	Libor target	0.25-1.25	16-09-04	0.00-0.75	0.25-1.25	0.00-0.75

Source: Reuters.

Fig. 12.10 Official rates

returns. For the investor, the direction and relative importance of their effects on a given equity portfolio vary considerably. The immediate effect of a rise in interest rates in one country is that the dividend yield of a share will be relatively less attractive than the interest rate on a local deposit account. The yield will also be less appealing than that of a government bond in the same country, the price of which will have fallen so that its fixed coupon's yield corresponds to the interest rate. Investors with a portion of their assets in cash or other options to equity should note these relative return movements.

A share's dividend yield may become even less desirable since the rate rise will probably increase the company's interest costs, reducing its profitability and perhaps leading it to cut dividends. The extent of the increased costs will hinge on the company's level of borrowing and its skills at locking into fixed-rate funding prior to the rate rise. Higher leverage and larger floating rate loans suggest greater potential damage to dividend yields from rising interest rates.

By the same token, much of the return sought on shares is from their potential for capital growth, and rate movements need not affect that. Interest rates tend to rise and fall in line with the level of economic activity. In a recession and the early stages of a recovery, they will generally be low and falling to encourage borrowing, while in the subsequent expansion and boom, they will rise as the demand for money exceeds the supply. As countries emerge from recession and move into boom, interest rates tend to rise, increasing capital costs. But, at the same time, growing economies should offer numerous opportunities for enhanced profitability. Over the longer term, the prospects for corporate profitability tend to have far more of an influence on share prices than interest rates. And those prospects are in turn powerfully affected by the growth potential and stability of the local economy.

Of course, rising interest rates may not necessarily signal the expansive phase of the business cycle. They could, for example, indicate excessive government budget deficits, which drive up the cost of borrowing. In that case, rate increases are unlikely to be promising for share values. Rate rises may also be a reflection of the need to restrain high or impending inflation. In a national context, this need not be disastrous since low inflation will benefit long-term corporate profitability, while high inflation at least implies low real interest rates. Within a global portfolio, however, company shares in relatively high inflation countries are eventually going to diminish in value when the currency in which they are priced devalues.

Equity returns are particularly affected by interest rates in firms and sectors where business revenues and costs are especially sensitive to rate changes, such as banks and life assurance companies. Even firms in industries dependent on household expenditure, such as the retail sector and breweries, may experience important changes in profits, as consumers shift their spending in response to the cost of credit. In addition, it is, as always, essential to note that as a result of investor expectations, the effects of changed interest rates could conceivably come before the change actually occurs. Financial markets often discount the future in this way, building into the prices of the assets traded on them all past, present and prospective information on their future values.

Interest rates also interact closely with currency rates: they are two of the most volatile features of world financial markets. To protect against their fluctuations and other price movements, many investors and companies employ a variety of risk management techniques, which in turn offer speculative opportunities. This leads to the subject of the next chapter, the market for futures, options and other derivative assets.

“A derivative is like a razor. You can use it to shave yourself and make yourself attractive for your girlfriend. You can slit her throat with it. Or you can use it to commit suicide.”

James Morgan

“Read Ben Graham and Phil Fisher, read annual reports, but don’t do equations with Greek letters in them.”

Warren Buffett

13

Futures and options

The derivatives markets

- **The international markets for derivatives** – futures and options become an integral part of the international capital markets
- **Options** – the right to buy or sell an underlying asset: reading the figures and using the information on equity options
- **Financial futures** – agreements to buy or sell a standard quantity of an underlying asset at a future date: bond derivatives; interest rate derivatives; interest rate swaps; currency derivatives; stock index futures and options

The complexity of our modern lives and the numerous decisions we are able to take are only made possible by our ability to manage risks – the risk of house fire; the risk of losing a job; the risk to the entrepreneur who invests in a business; the risk to the farmer who plants a crop that will have an uncertain yield and be sold at an uncertain price in several months' time; the risk to the investor in the stock market; and so on.

For each of these problems, society has found solutions. For example, most people agree that house insurance and unemployment insurance increase social well-being. The role of futures markets in insuring farmers against commodity price uncertainty is also understood to increase welfare. Equally, the role of the stock market in enabling the risks of businesses to be shared is now well understood – as indeed is the role of diversification in enabling investors to achieve the minimum risk for the returns generated on their portfolios.

But such widespread public acceptance is almost certainly not true of derivatives, and their role as a means for managing risk through the financial markets is frequently misunderstood. This may, in part, be due to the idiosyncratic nature of the instruments themselves, as illustrated by a number of controversial episodes: the failure of portfolio insurance in the 1987 stock market crash; their misuse in the cases of Barings, Gibson Greetings Cards, Metallgesellschaft, Orange County, California, and Procter & Gamble; and the near failure in 1998 of the hedge fund Long Term Capital Management, whose board included the pioneers of option pricing, 1997 Nobel Laureates for economics, Robert Merton and Myron Scholes.

Yet these instruments – futures, options and a multitude of variations on these themes – are packages of the basic components of risk: they more than anything else traded come close to the theoretically ideal instruments for the trading of risk. On the one hand, insurance can be a cost borne to eliminate a negative occurrence, accidental or structural, an outcome you cannot tolerate. On the other hand, it becomes a tool to shape a risk–return relationship, unique to each investor, from quite common investment alternatives. Derivatives can turn stocks into bonds and vice versa. And derivatives can pinpoint very precisely specific risks and returns that are packaged within a complex structure.

The standard definition of a derivative is an asset the performance of which is based on (derived from) the behaviour of the price of an underlying asset (often simply known as the "underlying"). Underlying assets (traded in what is known as the cash market) may be shares, bonds, currencies, interest rates or commodities, but in each case the assets themselves do not need to be bought or sold.

A derivative product can be either "exchange traded" where a contract is bought or sold on a recognised exchange, or it can be "over the counter" (OTC). An OTC instrument is "written" (sold) by a financial institution and tailored to suit the requirements of the client. Swaps where borrowers exchange the type of funds most easily raised for the type of funds that are required (based either on currency or interest rate considerations), usually through the medium of a bank intermediary, are a key OTC instrument.

The international markets for derivatives

Over the past 30 years or so, financial futures and options have established themselves as an integral part of the international capital markets. While futures and options originated in the commodities business, the concept was applied to financial securities in the United States in the early 1970s. Currency futures grew out of the collapse of the Bretton Woods fixed exchange rate system, and heralded the growth of a wide variety of financial instruments designed to capture the advantages or minimise the risks of an increasingly volatile financial environment. Now these products are traded around the world by a wide variety of institutions.

Financial Times coverage of the derivatives markets focuses primarily on those products traded on exchanges such as the London International Financial Futures Exchange (LIFFE, pronounced "life") and the two oldest and biggest exchanges, the Chicago Mercantile Exchange (CME) and the Chicago Board of Trade (CBT). There are more than 40 recognised, regulated exchanges worldwide.

The underlying cash instruments, be they bonds, equities, indices, interest rates or foreign exchange, are becoming ever more closely linked in price and trading patterns to the derivative instruments. In some markets, the turnover in derivatives is many times greater than turnover in the underlying products.

Essentially, futures and options provide vehicles both for trading and for the management of a diverse set of financial risks. They are thus of benefit to financial market participants ranging from securities houses that are trading shares and government bonds for their own accounts, to multinational companies that wish to manage their foreign exchange or interest rate exposure.

Investment managers, for example, tend to use derivatives in two ways. One is in deciding on the appropriate allocation of assets within their portfolios. In this case, exposure to a particular market can be changed for a time at perhaps 5 or 10 per cent of the cost of dealing in the underlying cash market, making it economically viable to change exposure for short periods. The second role is in fund management where futures and options can be used to modify risk/return profiles, a form of insurance against a downturn in the market.

Other financial institutions tend to use derivatives as sources of income. In the Barings incident in February 1995, for example, it was, apparently, Nick Leeson's job to exploit small differences in prices by buying financial instruments on one Far East exchange and selling those same instruments on another exchange, the process of arbitrage. In fact, it appears he became involved in one-way speculation. In January and February 1995, he effectively took a one-way bet on Japanese equities through increasingly heavy purchases of Nikkei 225 futures contracts on both the Osaka and Tokyo exchanges. The bet came horribly unstuck due to a sustained period of weakness in the Japanese equity market. And it was this incident that brought derivatives to the attention of a wider public than narrow professional finance circles, leading them to be labelled "the wild card of international finance".

The rest of this chapter examines the various futures and options contracts on which data and analysis are published in the *Financial Times* and on ft.com. Readers seeking greater detail on the full range of derivative instruments, as well as examples of how they work in practice, are referred to Francesca Taylor's *Mastering Derivatives Markets* (Financial Times/ Prentice Hall) and to Lawrence Galitz's *Financial Engineering: Tools and Techniques to Manage Financial Risk* (Financial Times/Prentice Hall).

Options

Options are derivative securities: they derive their value from the value of underlying assets. In the case of financial options, these underlying assets may be bonds, interest rates, currencies, individual stocks or stock groupings, or indices such as the FTSE 100. An option on an asset represents the right to buy or sell that asset at a predetermined price (the striking, strike or exercise price) at a predetermined future date (in the case of a European-style option) or by a predetermined future date (in the case of a US-style option). It is important to note that an option conveys the right, but not the requirement, to buy or sell.

The seller (generally known as the writer) of a put (an option to sell) or a call (an option to buy) receives a premium upfront from the option buyer. Other than this premium, there is no further exchange of money until and unless the option is exercised, either at or before expiration. If, say, over the life of a European-style call option, the price of the underlying asset rises above the striking price of the option, the option is said to be "in the money": the buyer can exercise the option at expiration and receive a profit equal to the difference between the option striking price and the actual price of the underlying assets, less the premium paid to the option writer. An in-the-money option is said to have intrinsic value.

If the call is "out of the money" or "at the money", that is, the underlying asset price is below or at the striking price, the option buyer will generally choose not to exercise the option. Nothing will be earned from the option position, and a loss will be incurred equal to the premium paid to the option writer. Before expiry, any option still has time value, the possibility that it will be worth exercising; at expiry, it only has intrinsic value left and if it is out of the money (or, as some analysts say, "under water"), then it has no intrinsic value.

On the other side of the transaction, the option writer receives the premium paid by the buyer. This represents clear profit if the option remains unexercised. However, the option writer also assumes the risk of having to sell the underlying asset at a striking price significantly below actual market price or to buy the underlying asset at a striking price significantly above the actual market price. In either of these cases, the loss suffered by the option writer at the exercise of the option can overwhelm any premium received for writing the option. It is potentially limitless.

Equity options

The LIFFE is the primary market for options and futures in the United Kingdom. It provides facilities for trading in derivatives contracts on stocks, stock indices, bonds, currencies and interest rates. For equity option contracts, the *Financial Times* lists price and trading data underneath the London share service Tuesday to Saturday, as in Figure 13.1:

Closing price of the share in the stock market

Striking price for this line of options

Premiums for call options with a December exercise date

Premiums for put options with a December exercise date

EQUITY OPTIONS

Option		Calls Jul	Calls Aug	Calls Sep	Puts Jul	Puts Aug	Puts Sep
AstraZeneca	2200	68.0	97.0	113.0	19.5	49.5	63.0
(*2245.0)	2300	17.5	44.5	60.0	68.0	100.5	111.5
Aviva	600	15.0	21.5	24.0	5.0	14.0	18.0
(*608.5)	650	-	2.5	4.5	41.5	48.5	50.0
Barclays	550	12.75	19.25	21.00	5.50	15.00	17.75
(*555.50)	600	0.50	3.00	4.00	44.25	52.50	52.50
BP	550	46.50	49.75	51.00	0.25	3.00	4.75
(*595.00)	600	6.75	13.25	16.25	10.75	18.25	20.75
BAT	1050	26.5	35.5	41.5	8.5	22.0	28.0
(*1066.0)	1100	4.5	12.0	17.0	37.0	51.5	56.0
BSkyB	500	28.5	34.5	38.5	1.5	5.5	8.0
(*525.5)	550	2.0	7.5	11.5	25.5	29.0	31.5
BT Group	220	6.75	8.00	9.00	2.25	6.75	8.00
(*224.00)	240	0.25	0.75	1.75	16.00	21.75	22.25
Diageo	800	18.5	27.0	32.5	5.0	10.5	21.5
(*811.5)	850	1.0	5.0	9.5	38.5	40.0	53.0
GlaxoSmKl	1300	48.0	60.5	68.5	9.0	23.0	29.5
(*1336.0)	1350	18.0	31.5	40.0	29.5	46.0	51.5
HSBC 75p	850	42.0	47.0	48.0	-	3.5	5.0
(*889.5)	900	4.5	11.5	14.5	12.5	21.0	23.5
LloydsTSB	460	14.25	18.50	19.75	2.00	9.00	12.00
(*471.00)	500	0.25	2.25	3.25	29.00	37.75	38.75
Marks & S	330	27.75	30.50	30.50	-	1.50	1.50
(*356.75)	360	4.50	9.25	9.25	5.75	10.25	10.25
Pearson	600	51.5	55.5	56.0	-	2.0	4.5
(*649.5)	650	11.0	17.5	19.5	8.5	15.0	21.5
Prudential	460	31.25	35.50	35.50	1.25	5.75	5.75
(*488.25)	500	4.50	10.75	10.75	14.75	22.50	22.50
Rio Tinto	1600	108.0	125.0	136.0	5.5	25.5	37.0
(*1699.0)	1700	35.0	59.0	74.0	32.5	63.5	75.5
Royal Bk Scot	1600	104.0	112.5	116.5	0.5	8.5	15.0
(*1699.0)	1700	22.5	37.5	45.0	19.0	40.0	48.0
Sainsbury	280	6.00	10.25	13.25	3.50	6.25	8.00
(*282.25)	300	0.25	2.75	4.75	17.75	18.75	20.25
Shell Trans	500	46.50	49.50	51.00	0.25	2.75	4.50
(*545.00)	550	7.75	15.25	17.00	11.50	19.75	21.25
Vodafone	130	5.00	6.25	7.25	0.25	1.00	1.75
(*134.25)	140	0.25	1.00	2.00	5.75	6.00	6.50
Option		Sep	Dec	Mar	Sep	Dec	Mar
O2	120	11.50	14.75	16.50	3.25	5.50	7.25
(*129.00)	130	5.50	9.25	11.25	7.50	10.00	11.75
3i Group	650	39.5	53.0	64.0	13.5	22.0	28.5
(*670.0)	700	13.0	26.0	37.5	38.0	45.5	52.0

Option		Calls Sep	Calls Dec	Calls Mar	Puts Sep	Puts Dec	Puts Mar
Allce & Leics	850	41.0	50.5	64.5	17.5	26.5	34.5
(*872.5)	900	14.0	24.5	38.0	46.0	52.0	59.0
Ald Domecq	650	32.5	38.0	46.5	4.0	7.5	20.0
(*673.5)	700	3.0	3.5	14.5	26.5	28.5	40.0
Amvescap	330	21.0	30.0	38.0	18.0	24.5	29.5
(*332.0)	360	9.0	17.5	24.5	36.5	41.5	46.0
Anglo Amer	1250	77.5	105.0	126.0	32.5	50.0	70.0
(*1291.0)	1300	46.5	75.5	96.5	53.0	71.0	91.0
ARM	110	9.75	12.75	15.75	3.25	5.50	7.25
(*115.50)	120	4.25	7.50	10.25	7.75	10.00	11.50
BAA	550	55.5	62.0	69.0	1.0	6.5	9.0
(*598.5)	600	16.0	24.5	34.5	12.5	20.0	23.0
BAE Systems	260	23.75	27.25	31.50	3.00	6.75	9.25
(*278.00)	280	10.00	14.50	18.75	9.25	14.25	16.50
BG Group	460	26.75	37.50	46.00	11.50	17.50	21.00
(*472.00)	500	9.50	18.50	25.75	34.50	39.00	41.75
BHP Billiton	700	48.0	64.5	76.5	25.0	37.0	45.0
(*719.5)	750	23.0	38.0	50.0	51.5	61.5	68.0
BOC Group	1000	45.5	67.5	75.5	19.5	29.5	42.0
(*1043.0)	1050	20.0	39.5	48.0	44.5	52.0	65.5
Boots Group	550	59.0	68.0	73.0	4.5	13.0	16.5
(*599.0)	600	23.5	35.5	42.0	19.5	31.0	35.0
Br Airways	260	18.50	25.50	31.25	10.25	14.75	18.25
(*265.00)	280	8.75	15.50	21.25	20.50	24.50	27.75
Cable & Wire	140	7.50	12.00	14.00	5.50	8.50	10.00
(*143.00)	160	1.25	4.25	6.00	19.75	21.25	22.00
Cadbury Sch	500	46.0	55.0	65.0	9.5	14.5	19.0
(*533.0)	550	17.5	27.5	37.0	32.0	36.5	41.0
Capita	360	21.0	27.5	34.0	6.0	10.0	12.5
(*372.0)	390	5.5	12.0	18.0	21.5	25.0	27.5
Carnival	3100	126.5	188.5	237.0	97.5	136.5	164.0
(*3110.0)	3200	80.0	137.5	186.0	152.0	187.5	212.0
Centrica	220	17.0	21.0	24.5	3.5	8.0	10.0
(*231.0)	240	6.0	10.5	14.5	13.0	17.5	19.0
Colt Tel	50	10.00	12.25	14.25	2.00	3.50	5.25
(*57.50)	60	4.50	6.75	9.25	6.25	8.00	10.00
Compass	220	13.50	18.50	21.75	5.75	8.75	13.25
(*228.50)	240	4.25	9.00	12.00	17.00	19.50	24.25
Corus	35	6.75	7.75	8.75	0.75	2.00	2.75
(*40.50)	40	3.25	4.75	5.75	2.25	3.75	4.75
Dixons	140	17.00	18.25	19.25	2.50	4.75	6.50
(*155.00)	160	4.00	6.50	8.25	12.50	14.50	16.00
EMAP	750	46.5	61.0	72.0	10.5	21.0	28.5
(*794.0)	800	17.5	32.5	44.5	32.5	44.0	51.0

Option		Calls Sep	Calls Dec	Calls Mar	Puts Sep	Puts Dec	Puts Mar
EMI	240	21.00	25.75	30.75	10.25	15.25	19.25
(*251.75)	260	10.00	15.50	20.50	20.25	25.25	29.00
Gallaher	800	37.0	49.5	61.5	19.5	34.0	46.5
(*809.0)	850	14.0	26.5	38.0	47.5	61.5	74.5
GUS	850	42.0	61.0	71.0	23.5	33.5	44.0
(*880.0)	900	19.0	35.0	45.0	51.0	58.5	68.0
Hanson	500	39.0	48.5	59.0	9.5	15.5	21.5
(*528.0)	550	11.5	22.5	32.0	34.0	39.0	44.0
HBOS	850	32.5	49.0	61.5	21.5	30.5	44.0
(*863.5)	900	10.5	24.0	36.5	51.5	57.0	70.5
Hilton	280	11.25	17.25	21.25	8.75	13.50	18.25
(*281.50)	300	3.00	8.25	12.50	21.50	25.00	30.00
ICI	240	23.75	28.50	33.00	4.75	8.25	11.75
(*259.00)	260	10.75	16.75	21.75	12.50	16.50	20.50
Impl Tobacco	1450	70.0	99.5	114.0	26.5	42.0	66.0
(*1496.0)	1500	41.0	71.5	84.5	49.0	64.0	90.0
IntCont Hotels	674	51.0	64.0	77.5	12.0	22.5	28.0
(*706.0)	726	20.5	34.0	46.5	34.0	44.5	50.5
Intl Power	180	24.75	29.25	33.00	2.50	5.50	8.25
(*200.50)	200	11.25	17.00	21.00	9.00	13.50	16.25
Invensys	9	2.00	2.50	3.00	0.50	1.25	1.25
(*10.50)	10	1.50	2.00	2.50	0.75	1.75	2.00
ITV	110	10.25	12.50	14.75	3.50	5.25	6.25
(*116.00)	120	5.00	7.50	9.50	8.00	10.25	11.00
Kingfisher	240	16.00	21.00	24.75	9.25	15.00	17.00
(*244.75)	260	8.00	12.75	15.75	20.75	26.50	28.00
Land Secur	1400	49.5	76.0	97.0	31.5	48.5	60.5
(*1404.0)	1450	25.5	50.5	71.0	59.0	74.5	85.0
Legal & Gen	110	5.00	7.50	9.75	3.25	5.25	6.50
(*111.75)	120	1.00	3.25	5.25	9.75	11.00	12.00
LogicaCMG	160	19.5	22.5	26.5	4.5	8.0	10.5
(*173.0)	180	8.0	12.0	15.5	13.0	17.5	19.5
Lon Stk Exchg	460	31.0	43.5	51.5	11.0	19.5	22.5
(*481.0)	500	9.5	22.5	29.5	29.0	38.0	40.0
Man Group	1400	80.5	111.0	145.0	51.5	79.0	96.5
(*1440.0)	1450	54.0	85.0	115.0	75.0	102.0	119.0
Mitchlls&Butlrs	300	36.5	44.0	47.0	2.5	6.5	11.5
(*330.0)	330	16.0	24.5	28.5	12.0	17.0	23.0
Morrison (Wm)	180	9.75	14.25	17.75	6.25	9.25	11.25
(*182.00)	200	2.00	5.50	8.75	19.00	21.00	22.50
Natl Grid Transco	500	44.00	53.00	58.25	3.25	10.50	15.00
(*536.00)	550	12.00	22.25	29.25	21.50	31.50	36.25
Next	1450	85.0	111.0	133.0	29.5	49.5	64.5
(*1491.0)	1500	55.5	82.5	106.0	50.0	71.5	87.0
Northern Rock	750	57.5	68.0	81.5	9.0	19.5	25.5
(*791.0)	800	25.5	37.5	51.5	27.0	39.5	45.0

Option		Calls Sep	Calls Dec	Calls Mar	Puts Sep	Puts Dec	Puts Mar
P & O	300	28.25	34.25	41.00	8.00	11.25	14.50
(*319.00)	330	11.75	18.00	24.50	22.25	25.50	28.50
Reckitt Bnckisr	1600	75.5	110.0	131.5	38.0	57.5	75.0
(*1636.0)	1700	27.5	59.0	80.5	93.0	109.0	124.5
Reed Elsevier	500	33.0	43.5	52.0	5.5	11.5	14.5
(*525.0)	550	6.5	15.5	24.0	30.0	34.5	38.0
Rentokil Init	140	20.25	22.00	25.00	1.00	3.50	4.75
(*157.75)	160	6.75	9.75	12.75	7.25	11.25	12.00
Reuters	360	35.75	45.50	52.50	6.50	12.75	19.25
(*389.00)	390	16.75	27.25	35.00	17.25	24.50	31.25
Rolls-Royce	280	14.75	20.00	25.50	7.50	12.75	16.50
(*284.50)	300	5.00	10.00	15.75	18.25	23.50	26.50
Royal/Sun Al	80	5.00	6.75	7.75	3.00	4.75	6.50
(*82.25)	90	1.25	2.75	3.50	9.75	10.75	12.25
SAB Miller	850	28.0	43.5	56.5	31.0	42.5	49.5
(*853.0)	900	10.5	21.5	34.0	65.5	71.5	77.5
Sage	220	11.50	17.25	21.00	6.00	9.25	12.25
(*223.00)	240	3.50	7.75	11.25	18.25	20.25	22.75
Scot Power	460	32.0	36.5	40.5	4.0	9.0	13.0
(*487.0)	500	8.0	13.5	19.0	21.5	27.5	31.5
Scot & Newcastle	460	23.5	31.0	37.5	17.0	22.5	26.5
(*465.5)	500	7.0	14.0	19.5	43.0	46.5	49.5
Scot & Sthn Energy	950	58.5	64.5	74.5	19.5	29.0	42.5
(*994.5)	1000	26.0	35.0	46.5	45.5	53.5	67.5
Shire Pharm	600	38.5	56.0	68.5	24.0	35.0	42.0
(*610.0)	650	16.5	32.0	44.5	51.5	61.5	68.0
Sm & Nephew	500	54.0	64.0	74.0	5.5	11.5	17.0
(*543.5)	550	20.5	32.0	43.0	22.0	29.5	35.5
Std Chartd	1000	39.5	59.5	72.0	26.0	37.5	50.5
(*1012.0)	1050	16.0	34.5	46.5	54.0	64.0	77.0
Tesco	300	24.00	27.75	33.00	2.00	5.25	7.50
(*319.00)	330	5.25	10.00	14.50	13.50	17.50	20.00
Tomkins	260	11.00	14.50	18.75	6.50	11.50	13.75
(*263.00)	280	2.50	6.00	9.75	18.25	23.25	24.75
Unilever	500	39.75	46.50	53.00	3.75	9.50	13.25
(*531.00)	550	9.25	15.75	23.00	23.75	30.00	33.25
Utd Utilities	650	25.5	40.0	45.5	14.5	22.0	34.5
(*654.0)	700	6.5	17.5	23.0	47.5	53.0	63.5
Whitbread	929	45.5	63.0	63.0	27.5	41.0	41.0
(*937.0)	978	23.0	39.5	39.5	54.5	66.5	66.5
WPP Group	550	39.5	51.0	61.5	6.0	14.0	19.0
(*578.0)	600	10.0	21.0	31.5	26.5	35.0	39.5
Option		Sep	-	-	Sep	-	-
Banco Santander xe	625	18.0	-	-	16.0	-	-
(*628.0)	673	2.5	-	-	50.0	-	-

* Underlying security price. Premiums shown are based on settlement prices. **Source: Euronext.liffe**

June 28 Total contracts, Equity & Index options: 88.105 Calls: 28.672 Puts: 33.681

Fig. 13.1 Equity options

Reading the figures

- **Option:** the first column lists the security from which the options are derived and its closing price in the cash market on the previous day. For example, in this table, shares in Vodafone closed at 134.25 pence.
- **Striking price:** the second column gives the option series quoted. For Vodafone, there are two series, one with a striking price of 130 pence, the other with a striking price of 140 pence. Thus, one is lower than the current cash market price, the other higher.
- **Calls:** the third, fourth and fifth columns give the price or premiums payable for call options that can be exercised on three different dates. For Vodafone, the price of a 130 pence call option that expires in August is 6.25 pence, while a 140 option that expires in the same month costs 1 pence.
- **Puts:** the last three columns give the premiums payable for put options that can again be exercised on three dates in the future.

Using the information

The buyer of an option is willing to risk a limited amount (the premium) in exchange for an uncertain reward (the possibility of buying at some level below or selling at some level above the market price), whereas the option writer is willing to accept an offsetting, uncertain risk (having to sell at some level below or buy at some level above the market price) in return for a certain reward (the option premium).

Option contracts, like insurance policies, are used to protect the investor, whether writer or buyer, from unacceptable risk. The option buyer is in a position analogous to that of the owner of an insurance policy; the uncovered option writer is like the insurance underwriter who accepts risk in return for premium income.

For most investors and companies, options are protection against wide price fluctuations. For dealers and speculators, they are an opportunity for big profits.

As an investment, call options are highly geared so that a small change in the underlying asset value has a significant effect on the option value. Put options on the other hand are more of a hedging strategy protecting against the fall of stock or portfolio value by establishing a floor price below which they cannot fall.

As in the currency markets, it is important in the options markets to have liquidity, and so *Financial Times* reports often focus on the turnover in the option markets.

Financial futures

A financial futures contract is an agreement to buy or sell a standard quantity of a certain financial instrument or foreign currency at a future date and at a price agreed between two parties. Trades are usually executed on an exchange floor with buyers and sellers

grouped together in a pit shouting at each other in what is termed "open outcry". Increasingly, exchanges are developing automated systems that allow trading to take place on computer screens. The financial guarantee is generally provided by a central clearing house, which stands between buyer and seller and guarantees the trade.

Futures and options are leveraged instruments. This means that for a relatively small down payment (margin for futures, premium for options), participants gain a disproportionately large exposure to price movements in the underlying cash market, hence their appeal as a trading vehicle. They are also used to a large extent as a hedging mechanism. For example, if a US multinational company incurs a significant exposure to the euro through the nature of its export markets, but also believes that the dollar will appreciate against the euro over coming months, the treasurer might wish to sell euro futures to cover the company's risk. Losses incurred by lower revenues should then be at least partially offset by gains from selling the future.

An investor might also use futures to hedge a portfolio, most commonly using index futures, which are futures on major market indices. For example, if the market is expected to fall, selling stock index futures can protect portfolio value: if the market does fall, the loss on the actual stocks is compensated by the profits of buying back the futures at a reduced price.

The relationship between the futures and cash markets is kept stable by the arbitrageurs who seek out discrepancies between the prices. Generally, futures trade a little above the cash price, reflecting the time and risk premiums. If, for example, there are expectations of a market rise and the future and cash prices are equivalent, money goes into the futures, driving up its price relative to the cash price.

Bond derivatives

The ft.com website features details of a wide range of commonly traded financial derivatives. For example, there is a daily list of prices for futures on UK, US, Japanese and euro-denominated bonds (see Figure 13.2). For the most part, these are traded on the LIFFE, the Chicago Board of Trade and the Eurex, the German–Swiss electronic exchange, which has overtaken LIFFE as the world's largest derivatives market.

- **Bond and date:** the name of the future indicates the underlying bond on which it is based, in the case of the Long gilt-LIFFE a notional UK gilt worth £100,000; the date in the next column is when the contract will be finally settled.
- **Face value and calibration:** for most bond futures, there is a nominal face value, in the case of the US Treasury bond future, $100,000. That price is a notional one, the owner paying (or receiving if the future price is below 100 per cent) only the difference between that and the futures contract price. The price on this future (and other US futures) is calibrated in 32nds, that is, the price can move by a minimum of one 32nd of 100 per cent.

FT.com Data available at www.ft.com/marketsdata

BOND FUTURES

Aug 23		Open	Latest	Change	High	Low	Est. vol	Open int.
Euro-Eurex	Sep	123.24	123.24	-0.01	123.29	122.89	833,847	1317,004
	Dec	122.31	122.32	-0.01	122.36	121.98	6,074	51,982
Japan 10yr-TSE	Sep	138.50	138.45	+0.20	138.56	138.48	53,552	111,314
	Dec	138.08	137.90	-0.27	138.15	138.08	225	6,578
US Tr long-CBOT	Sep	116-07	116-16	+0-08	116-24	116-00	243,365	563,857
	Dec	115-28	116-05	+0-09	116-12	115-22	25,866	55,147
US Tr 10yr-CBOT	Sep	111-175	111-230	+0-040	111-270	111-130	683,774	1592,397
	Dec	110-255	110-295	+0-040	111-015	110-200	94,644	420,086
Euro-Bobl-Eurex	Sep	115.23	115.18	-0.05	115.24	114.97	423,818	844,389
	Dec	114.36	114.36	-0.04	114.36	114.17	1,507	32,315
Euro-Schatz-Eurex	Sep	106.635	106.580	-0.050	106.640	106.520	513,232	824,306
	Dec	106.520	106.460	-0.060	106.525	106.425	12,499	15,875
US Tr 5 yr-CBOT	Sep	107-180	107-230	+0-040	107-255	107-155	421,826	1109,642
	Dec	107-110	107-160	+0-045	107-180	107-085	89,738	300,285
Long gilt-Liffe	Sep	113.32	113.44	+0.17	113.46	113.09	64,043	224,680
	Dec	113.03	113.15	+0.17	113.13	112.86	15,431	2,524
SFE 3 yr	Sep	94.91	94.91	-0.01	94.91	94.90	6,027	411,943
Kofex 3 yr	Sep	109.93	109.63	-0.37	109.98	109.53	81,834	117,814

Contracts shown are among the most heavily traded in 2004. Open interest figures and are for the previous day. CBOT volume, high & low for pit & electronic trading at settlement. For more contract details see: www.eurexchange.com,cbot.com, tse.or.jp, liffe.com. Changes based on prev sett price. US data in 32nds.
Source: Reuters.

Fig. 13.2 Bond futures

- **Opening, latest, change, high** and **low:** information on the price at which contracts began trading in the morning (not necessarily the same as the previous day's closing price); the current settlement price (yesterday's closing price, the price at which the contract would currently be settled); the change on the previous day's closing price; and highs and lows reached during the day's trading.
- **Estimated volume** and **open interest:** the estimated number of contracts actually exchanged during the day, and the number in which traders have expressed interest in buying or selling on the previous day. Not all contracts in which there is open interest are actually traded: they do not become part of estimated volume.

The ft.com website also has data on a handful of bond options, including US Treasury 10 year options, 10 year Japanese government bond options and euro bund options. As with equity options, these list premiums for call and put options with a range of different striking prices and maturities.

Interest rate derivatives

The paper's Market Data page carries a similar table for interest rate futures (see Figure 13.3), including futures on three-month Euribor, Euro-Swiss francs, sterling, Eurodollars

and Euroyen plus US Treasury bills. On ft.com, there are daily data on various interest rate options, including three-month Eurodollar options, Euribor options and short sterling options. Such interest rate derivatives can be used to cover any interest rate risk, from an overnight exposure to one lasting 25 years. Interest rate risk is either of increased funding costs for borrowers or of reduced yields for investors.

The information provided in the table for interest rate futures contracts includes the month in which the contract will finally be settled; the opening price of the contract on the latest day of trading; the settlement price, which is the closing price used for determining profits and losses for marking accounts to market; the change on the previous day's price; the day's high and low prices; the trading volume; and the open interest, the sum of outstanding long and short positions, which gives an indication of market depth.

INTEREST RATE FUTURES

Aug 9		Open	Sett	Change	High	Low	Est. vol	Open int.
Euribor 3m*	Sep	97.86	97.86	-0.01	97.87	97.86	16,409	535,818
Euribor 3m*	Dec	97.79	97.78	-0.02	97.80	97.78	59,637	609,277
Euribor 3m*	Mar	97.69	97.69	-0.02	97.71	97.69	49,500	441,276
Euribor 3m*	Jun	97.58	97.59	-0.01	97.60	97.58	40,348	362,834
Euribor 3m*	Sep	97.48	97.49	-0.01	97.50	97.48	24,716	244,461
Euroswiss 3m*	Sep	99.21	99.21	+0.00	99.22	99.20	3,065	58,572
Euroswiss 3m*	Dec	99.09	99.08	-0.02	99.10	99.07	7,947	101,391
Sterling 3m*	Sep	95.45	95.44	-0.01	95.45	95.43	22,156	274,487
Sterling 3m*	Dec	95.55	95.55	-	95.56	95.53	26,716	362,046
Sterling 3m*	Mar	95.58	95.59	-	95.60	95.56	23,976	287,589
Sterling 3m*	Jun	95.55	95.57	-	95.58	95.53	19,103	236,749
Sterling 3m*	Sep	95.49	95.51	-	95.52	95.47	13,623	175,437
Eurodollar 3m†	Sep	96.00	96.00	+0.00	96.01	95.99	110,762	1166,215
Eurodollar 3m†	Dec	95.64	95.68	+0.03	95.69	95.64	112,011	1021,505
Eurodollar 3m†	Mar	95.50	95.54	+0.03	95.56	95.49	126,350	1155,365
Eurodollar 3m†	Jun	95.41	95.46	+0.03	95.48	95.40	103,865	878,840
Eurodollar 3m†	Sep	95.35	95.40	+0.03	95.42	95.34	95,798	732,023
Eurodollar 3m†	Dec	95.31	95.36	+0.04	95.37	95.30	53,138	559,796
Eurodollar 3m†	Mar	95.30	95.34	+0.03	95.35	95.29	22,868	418,156
Fed Fnds 30d‡	Aug	96.530	96.535	-	96.535	96.530	2,892	159,099
Fed Fnds 30d‡	Sep	96.380	96.385	-	96.385	96.380	4,104	76,047
Fed Fnds 30d‡	Oct	96.225	96.230	+0.000	96.230	96.215	11,806	97,092
Euroyen 3m‡‡	Sep	99.905	99.910	-	99.910	99.905	164	194,981
Euroyen 3m‡‡	Dec	99.885	99.885	-	99.885	99.880	9,801	259,413
Euroyen 3m‡‡	Mar	99.850	99.850	+0.000	99.850	99.845	5,430	196,191

Contracts are based on volumes traded in 2004. Sources: * LIFFE. † CME. ‡ CBOT. ‡‡ TIFFE

Fig. 13.3 Interest rate futures

An example of how these contracts work, and one of particular interest to companies and financial institutions in the United Kingdom, is the short sterling futures market. The short sterling futures contract is based on a notional three-month deposit transaction. Its price is equal to 100 minus whatever interest rate is expected by the market when the three-month contract expires. Hence the price of the contract rises when interest rates fall. The market also gives an indication of interest rate expectations, which is valuable for policy-makers and other forecasters.

Short sterling traders can use the market to protect themselves against possible interest rate movements, effectively fixing the interest rate at which they borrow or lend. For example, a lender who fears rate falls can buy short sterling contracts expiring in three months: if by then rates have not fallen the lender has lost nothing; if they have fallen, the lower return on the investment is offset by a rise in the price of the futures contract. Similarly, a borrower fearing a rate rise could hedge the risk by selling short sterling futures: if rates do rise, the contracts can be bought back at a lower price, offsetting the higher interest costs. Speculators can use the markets for gambles on future rate movements.

The ft.com tables for options show the premiums for put and call options with a range of different striking prices and maturities.

Interest rate swaps

Interest rate and currency swaps are a relatively recent innovation but they have grown rapidly and now dwarf other financial instruments. At the end of 2004, there was $184 trillion worth of swaps outstanding compared with $58 trillion five years earlier.

An interest rate swap is an agreement in which two parties (known as counterparties) agree to exchange periodic interest rate payments. The actual amount of the interest payments exchanged is based on a predetermined principal, called the notional principal amount. But the only money that is exchanged is the interest payments on this amount. In the most common type of swap, one party agrees to pay the other party fixed interest payments at designated dates for the life of the contract. The other party agrees to make interest payments that float according to an agreed index such as LIBOR.

Swaps are a useful tool. Banks, for example, can use them to match their assets and liabilities more closely. If they have lots of short-term floating rate liabilities such as savings accounts but long-term fixed rate assets such as loans, they can swap long-term assets into short-term ones. Similarly, companies can use swaps to convert fixed-rate debt (which investors might prefer and which is therefore easier to raise) into floating-rate debt.

A daily table published in the *Financial Times* shows benchmark interest rates for swaps in five different currencies and for a range of different durations (see Figure 13.4). Below it is a table of recent trading data for interest rate swap futures.

Currency derivatives

The Market Data page also contains a table of currency futures (see Figure 13.5). These can be used for managing currency risk, the danger of receiving a smaller amount of the base currency than expected, or paying out more of the base currency to purchase a required amount of foreign currency. Also, they may be used by speculators aiming to buy and sell currencies for profit.

INTEREST RATE SWAPS

	Euro-€		£ Stlg		SwFr		US $		Yen	
Aug 09	Bid	Ask	Bid	Ask	Bid	Ask	Bid	Ask	Bid	Ask
1 year	2.28	2.31	4.55	4.57	0.94	1.00	4.28	4.31	0.08	0.11
2 year	2.46	2.49	4.52	4.56	1.22	1.29	4.50	4.53	0.18	0.21
3 year	2.63	2.66	4.57	4.61	1.45	1.52	4.59	4.62	0.33	0.36
4 year	2.78	2.81	4.59	4.64	1.62	1.70	4.65	4.68	0.49	0.52
5 year	2.92	2.95	4.61	4.66	1.77	1.86	4.70	4.72	0.67	0.70
6 year	3.05	3.08	4.63	4.68	1.90	1.99	4.73	4.76	0.85	0.88
7 year	3.17	3.19	4.65	4.70	2.02	2.10	4.76	4.79	1.02	1.05
8 year	3.27	3.30	4.66	4.71	2.12	2.20	4.79	4.82	1.18	1.21
9 year	3.37	3.40	4.67	4.72	2.22	2.30	4.82	4.85	1.32	1.35
10 year	3.45	3.48	4.67	4.72	2.30	2.38	4.85	4.88	1.44	1.47
12 year	3.59	3.62	4.67	4.74	2.42	2.52	4.90	4.93	1.65	1.68
15 year	3.73	3.76	4.65	4.74	2.55	2.65	4.96	5.00	1.89	1.92
20 year	3.87	3.90	4.60	4.73	2.68	2.78	5.03	5.05	2.15	2.18
25 year	3.94	3.97	4.56	4.69	2.75	2.85	5.05	5.08	2.31	2.34
30 year	3.96	3.99	4.52	4.65	2.79	2.89	5.06	5.09	2.39	2.42

Bid and ask rates as of close of London business. US $ is quoted annual money actual/360 basis against 3 months Libor, £ and Yen quoted on a semi-annual actual/365 basis against 6 months Libor, Euro/Swiss Franc quoted on annual bond 30/360 basis against 6 month Euribor/Libor with the exception of the 1 year rate which is quoted against 3 month Euribor/Libor. Source: ICAP plc.

INTEREST RATE SWAP FUTURES

Aug 9		Open	Sett price	Change	High	Low	Est. vol	Open int.
$ 10 year*	Sep	108-24	108-29	+0-07	108-29	108-17	403	36,530
Euro 10 year†	Sep	121.08	121.22	-	121.17	121.08	38	44,433
Euro 5 year†	Sep	113.94	113.96	-0.04	114.03	113.94	69	25,728
Euro 2 year†	Sep	106.720	106.720	-0.015	106.720	106.720	10	14,032
Yen 5 year‡	Sep	111.25	111.18	-0.08	111.25	111.18	590	2,340

Selection based on trading vols in 2004. Sources: † Euronext.liffe SWAPNOTE®.; * CBOT; ‡ Tiffe.

Fig. 13.4 Interest rate swaps and swap futures

CURRENCY FUTURES

Aug 9		Open	Sett	Change	High	Low	Est. vol	Open int
€-Sterling*	Sep	0.6940	0.6947	+0.0015	0.6957	0.6947	239	6,998
€-Yen*	Sep	138.00	138.11	-0.08	138.26	138.00	635	12,539
$-Can $ †	Sep	0.8239	0.8247	-0.0002	0.8264	0.8218	8,664	86,750
$-Euro € †	Sep	1.2370	1.2388	+0.0005	1.2439	1.2351	98,976	141,084
$-Euro € †	Dec	1.2430	1.2444	+0.0005	1.2494	1.2411	153	2,377
$-Sw Franc †	Sep	0.7951	0.7964	+0.0001	0.7998	0.7942	18,510	66,376
$-Yen †	Sep	0.8951	0.8968	+0.0007	0.8991	0.8945	22,071	156,676
$-Yen †	Dec	0.9041	0.9058	+0.0007	0.9067	0.9039	16	20,510
$-Sterling †	Sep	1.7828	1.7842	-0.0008	1.7897	1.7803	17,934	72,798
$-Aust $ †	Sep	0.7624	0.7588	-0.0047	0.7647	0.7566	8,752	73,060
$-Mex Peso †	Sep	93025	93425	+175	93525	92325	6,555	6,724

Sources: * NYBOT; Sterling €100,000 and Yen: €100,000. †CME: Australian $: A$100,000, Canadian $: C$100,000, Euro: €125,000; Mexican Peso: 500,000, Swiss Franc: SFr125,000; Yen: Y12.5m ($ per Y100); Sterling: £62,500. CME volume, high & low for pit & electronic trading at settlement. Contracts shown are based on the volumes traded in 2004.

Fig. 13.5 Currency futures

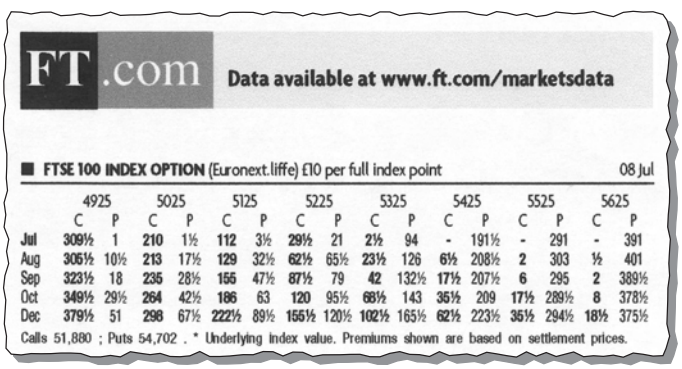
Stock index futures and options

Stock index futures and options began to be traded on the LIFFE in 1984. A stock index future is an agreement between two parties to compensate each other for movements in the value of a stock index over the contract period. The value of the stock index is defined as being the value of the index multiplied by a specific monetary amount, the index multiplier or amount per full index point.

A stock index option gives the holder the right but not the obligation to buy or sell an agreed amount of an equity index at a specified price on or before a specified date. A premium is paid for this right. One of the principles behind stock index futures and options is cash settlement. This is the process used at expiry (or exercise) whereby a cash difference reflecting a price change is transferred, rather than a physical delivery of the underlying basket of shares.

As with all derivatives, both index options and futures can be used for either hedging or speculation. For example, a fund manager wishing to hedge the value of a portfolio when the stock market may fall will sell index futures. Being long in the cash market and short in the futures market will mean that if the market does fall, a nominal loss on the portfolio is compensated by a gain on the futures, which can be bought back at a lower price. A speculator expecting a market fall may sell futures without any underlying exposure, or sell call options on the index, profiting from the premium if the market does fall and the options expire out of the money.

The ft.com website lists daily data on various equity options, including one based on the FTSE 100 index (see Figure 13.6) and options on the DAX, the Nikkei 225 and the S&P 500 indices. As with equity options, the tables include the premiums for put and call options with a range of different striking prices (values of the index) and maturities.



FT.com Data available at www.ft.com/marketsdata

■ **FTSE 100 INDEX OPTION** (Euronext.liffe) £10 per full index point 08 Jul

	4925		5025		5125		5225		5325		5425		5525		5625	
	C	P	C	P	C	P	C	P	C	P	C	P	C	P	C	P
Jul	309½	1	210	1½	112	3½	29½	21	2½	94	-	191½	-	291	-	391
Aug	305½	10½	213	17½	129	32½	62½	65½	23½	126	6½	208½	2	303	½	401
Sep	323½	18	235	28½	155	47½	87½	79	42	132½	17½	207½	6	295	2	389½
Oct	349½	29½	264	42½	186	63	120	95½	68½	143	35½	209	17½	289½	8	378½
Dec	379½	51	298	67½	222½	89½	155½	120½	102½	165½	62½	223½	35½	294½	18½	375½

Calls 51,880 ; Puts 54,702 . * Underlying index value. Premiums shown are based on settlement prices.

Fig. 13.6 FTSE 100 index options

■ **Index futures:** as with bond futures, the table includes opening prices, settlement prices, price changes, daily highs and lows, estimated volume and open interest.

- **Index points:** pounds per full index point are a measure of the trading unit, for example, the FTSE 100 index future unit is £10 per index point. This means that when the index is at 4,925, a futures buyer is covering the equivalent of £49,250 of equities. If the index rises 200 points, the buyer can sell a matching contract and make a profit of £2,000.

The UK market for index futures and options can be used in its own right for speculation, or as an overlay on a portfolio of UK securities in order to hedge its value or to expose it to greater risk and the potential for greater gain. Similarly, derivatives based on foreign market indices can be used to hedge an international portfolio or to gain exposure to those markets. There is a daily table of prices for futures contracts on a number of market indices on ft.com (see Figure 13.7):

FT.com Data available at www.ft.com/marketsdata

EQUITY INDEX FUTURES

Jul 8		Open	Sett	Change	High	Low	Est. vol.	Open int.
DJIA	Sep	10347.0	10472.0	+139.0	10481.0	10320.0	8,697	29,857
Mini Dow	Sep	10352.0	10472.0	+139.0	10483.0	10321.0	113,499	47,170
e-Mini Russell 2000	Sep	651.70	665.25	+14.00	665.90	651.20	117,308	239,534
DJ Euro Stoxx‡	Sep	3210.0	3244.0	+51.0	3248.0	3199.0	666,547	1775,243
S&P 500	Sep	1202.70	1216.40	+13.60	1217.00	1200.70	35,028	644,023
Mini S&P 500	Sep	1202.75	1216.50	+13.75	1217.25	1200.75	841,624	889,327
Nasdaq 100	Sep	1512.00	1544.50	+32.00	1545.00	1509.50	7,607	51,572
Mini Nasdaq	Sep	1512.50	1544.50	+32.00	1545.00	1509.50	307,731	274,504
CAC 40	Jul	4256.5	4301.5	+81.5	4321.0	4251.5	91,951	481,533
DAX	Sep	4593.5	4634.0	+60.5	4639.0	4576.5	130,611	208,100
AEX	Jul	387.95	388.70	+4.90	388.80	386.60	26,112	113,787
MIB 30	Sep	32440.0	32801.0	+583.0	33230.0	32405.0	18,482	23,308
IBEX 35	Jul	9722.0	9784.0	+156.5	9789.0	9676.0	13,704	68,813
SMI	Sep	6298.0	6320.0	+65.0	6324.0	6277.0	28,775	183,939
FTSE 100	Sep	5200.0	5233.5	+75.5	5247.5	5191.0	101,997	463,418
Hang Seng	Jul	14050.0	13927.0	-100.0	14096.0	13923.0	30,120	115,851
Nikkei 225†	Sep	11540.0	11580.0	-10.0	11660.0	11540.0	64,346	225,143
Topix	Sep	1175.5	1176.5	-2.5	1184.5	1175.0	28,244	332,000
KOSPI 200	Sep	131.65	131.45	-0.20	132.40	131.35	132,662	88,667

North American Sett . Contracts shown are among the 25 most traded based on estimates of average volumes in 2004. CBOT volume, high & low for pit & electronic trading at settlement. Previous day's Open Interest. † Osaka contract. ‡ Eurex contract.

Fig. 13.7 Equity index futures

Stock index futures of this kind offer a number of advantages to investors and fund managers. First, they permit investment in these markets without the trouble and expense involved in buying the shares themselves. Second, operating under a margin system, like all futures, they allow full participation in market moves without significant commitment of capital. Third, transactions costs are typically many times lower than those for share transactions. Fourth, it is much easier to take a short position. Lastly, fund managers

responsible for large share portfolios can hedge their value against bear moves without having to sell the shares themselves.

Economic news and other financial markets are crucial in determining futures market behaviour. Similarly, their ability to spread risk and deliver exceptional profits makes the derivatives markets increasingly central to financial activity and a major influence on the world economy.

“Gold, the barbarous relic.”

John F Kennedy

“Gold, part of the apparatus of conservatism.”

John Maynard Keynes

14

Primary products

The commodities markets

- **London spot markets** – commodities available for immediate delivery
- **Commodity futures markets** – opportunities for hedging and speculation in the markets for "softs": cocoa, coffee and sugar; other commodities, including oil
- **Metals** – precious and base metals: the London Metal Exchange; reading the figures and using the information on gold and the London bullion market
- **Other key commodity markets** – the markets in New York and Chicago; commodity price indices

Commodities are basic raw materials, primary products and foodstuffs that are homogeneous and generally traded on a free market. Commodity contracts may represent cash transactions for immediate delivery, or, more commonly, forward contracts for delivery at a specified time in the future. The bulk of such contracts are bought and sold on a commodities exchange by dealers and commodity brokers or traders. Their homogeneity, coupled with fast communications and an efficient system of quality grading and control, means that they can be traded without an actual transfer of the goods. This allows enormous scope for hedging and speculative activity as traders buy and sell rights of ownership in spot and futures markets. Commodities were in fact the origin of the derivatives markets discussed in the previous chapter.

As in all free markets, the prices of commodities are determined by the forces of demand and supply. And because of the nature of the conditions of demand and supply for commodities, their prices tend to swing more violently than prices of manufactured goods. A small but persistent surplus of the supply of, say, tin, over demand can cause a dramatic slump in prices; similarly, disastrous weather conditions and a poor harvest can drive up a crop price.

Commodities are primarily of interest to industrial users. Oil is the one with the most widespread potential impact because almost all businesses have some energy needs, but there are plenty of other examples. Prospective cocoa prices, for instance, are critical to chocolate makers, while certain metal prices will affect such companies as producers of cars, ships and manufactured goods, as well as the construction industry.

Companies whose profitability is partly dependent on the cost of their raw materials will naturally seek protection from potential surges in primary commodity prices. It is this need to hedge that gives rise to the futures markets.

For investors, commodities offer the potential for exceptionally high returns but a very high degree of risk. In addition, investing in physical commodities is rarely possible given the problem and costs of storage. Indeed, few private investors play even the commodities futures markets except through various managed funds, which diversify their risks across a variety of commodities, or by investing in companies in oil, gold mining and other extractive and exploratory industries. The majority of the players in the primary commodity markets are professional speculators who take the opposite side of hedgers' positions. For this small group, the commodity sector is ultimately high risk for high reward.

Financial Times coverage of commodities markets appears on the daily Capital Markets & Commodities page, typically with a report on the markets and a table of the previous day's price data from markets in London, New York and Chicago (see Figure 14.1). Saturday's and Monday's newspapers add figures on prices at the close of trading for the week, the change on the previous week, prices one year ago and the highs and lows for the year to date (see Figure 14.2). More detailed commodities data are available on ft.com.

The commodities markets are dominated by a limited range of players but are important to all markets and the wider economy particularly as a leading indicator of trends in and expectations of inflation and equity and bond prices.

COMMODITY PRICES

		Change
Alum HG (cash, t)	$1894-95	+10.0
Alum Alloy (cash, t)	$1630-35	+15.0
Copper Gr A (cash, t)	$3839-40	+27.0
Lead (cash, t)	$908-8.5	+3.5
Nickel (cash, t)	$15100-105	-225
Tin 99.85% (cash, t)	$7210-20	+77.5
Zinc SHG (cash, t)	$1335-35.5	-10.0
Gold close (troy oz)	$438.80-439.50	+0.6
Gold am fix (troy oz)	$439.85	+2.4
Gold pm fix (troy oz)	$439.35	-0.3
Gold - GOFO, 3mth	3.74	-0.01
Silver fix (troy oz)	705.50c	+6.5
Platinum (troy oz)	$893.0	+2.0
Palladium (troy oz)	$182.0	nc
Oil- Brent blend (Oct)	$64.65-4.71	-0.7
Unleaded Gas (95R)	$615-617	-11
Gas Oil (German Htg)	$589.7-91.7	-0.8
Heavy Fuel Oil	$262-264	nc
Naphtha	$534-536	-1
Jet fuel	$640.7-42.7	-4.8
Diesel (French)	$605.7-07.7	-0.8
NBP Gas (Sep)	31.15-31.25	-0.3
Euro Gas (Zeebrugge)	30.85-31.05	-0.3
UKPX Spot Index £/Mwh	43.06	+12.5
Conti Power Index €/Mwh	41.8763	+3.3
globalCOAL RB Index™ †	$47.57	+0.7
Barley	68.0	nc
Maize (No3 Yellow) ♠	57.2	nc
Wheat (US Dark Nth)	103.4	nc
Rubber (KL RSS no1, c/kg)	534.5m	+7.5
Palm Oil (Malay) ‡	402.5	-5
Soyabeans (US)	165.0	+1.0
Cotton A index (per lb)	52.90c	nc
Wooltops (Super, p/kg)	412.0	nc
Coffee fut (Sep)	$997	+17
Cocoa fut (Sep)	812	+6
Sugar fut (white, Oct)	$287.3	+0.90

Sources: LME/Amalgamated Metal Trading, lbma.org., Petroleum Argus, HGCA, UK power exchange, Platts, Global Coal, Reuters and Euronext.liffe. † US $ per metric tonne, week to date. ‡ CIF Rotterdam. ♠ CIF UK. t per tonne.

Fig. 14.1 Commodity prices (daily)

COMMODITIES www.ft.com/commoditiesdata

	Sett prices	Change on day	Change on week	Year ago	2005 High	2005 Low
Aluminium HG (cash,t)	$1877-78	+16.75	-20.5	1719.5	2031.00	1084.75
Aluminium Alloy (cash,t)	$1595-605	+7.50	-47.5	1522.5	1875.50	1445.00
Copper Grade A (cash,t)	$3788-89	+6.00	+19.0	2830	4356.5	2318.0
Lead (cash,t)	$878-8.5	+3.75	-35.3	903.5	1010.5	399.50
Nickel (cash,t)	$14950-75	-145.00	-612.5	14285	68752.5	10527.5
Tin 99.85% (cash,t)	$7245-50	+280.00	-117.5	9275	10087.5	6223.0
Zinc SHG (cash,t)	$1331-1.5	+16.00	+36.5	962.5	7151.50	942.50
Gold close (troy oz)	$437.80-438.60	-3.80	-8.4	413.53	455.15	-0.35
Gold - GOFO, 3mth	3.75	+0.01	+0.1	1.66	3.75	2.54
Kruggerands	$444.00	-7.70	-7.7	403.5	453.00	369.00
Silver fix (troy oz)	699.50c	+3.50	-18.0	680.50	7109.00	549.50
Sovereigns	$106.0	-2.00	-2.0	96.0	108.00	90.0
Platinum (troy oz)	$887.5	+0.50	-27.5	854.0	934.00	767.00
Palladium (troy oz)	$183.0	-1.50	-4.0	220.0	333.00	172.00
Oil- Brent blend (Sep)	$63.97-4.03	+2.16	-2.0	45.09	65.97	28.64
Unleaded Gas (95R)	618.0-20.0	+6.50	-25.0	454.0	647.00	316.00
Gas Oil (German Htg)	$586.3-88.3	+9.50	-9.2	412.3	596.50	278.00
Heavy Fuel Oil	$259.0-61.0	+8.00	-1.0	160.0	261.00	112.00
Naphtha	$524.0-26.0	+18.00	-14.0	448.5	539.00	307.00
Jet fuel	$641.3-43.3	+9.50	-15.2	560.3	657.50	303.50
Diesel (French)	$602.3-04.3	+9.50	-21.2	436.3	624.50	284.50
NBP Gas (Sep)	31.50-31.60	-0.03	-0.1	22.50	43.00	18.88
Euro Gas (Zeebrugge)	31.15-31.35	-0.13	-0.3	24.20	37.20	19.78
UKPX Spot Index £/Mwh	38.52	+4.92	+7.3	19.98	80.72	15.15
Conti Power Index €/Mwh	38.5959	nc	nc	29.1955	63.15	16.25
globalCOAL RB Index™ †	$46.79	+0.03	+0.1	57.73	72.29	42.25
Barley	69.0	nc	nc	65.0	97.66	62.00
Maize (No3 Yellow) ♠	57.2	nc	nc	55.9	77.3	48.90
Wheat (US Dark Nth)	103.4	nc	nc	85.0	109.70	85.00
Rubber (KL RSS no1, c/kg)	526.0	-2.00	-14.0	451.0	595.50	443.50
Palm Oil (Malay) ‡	412.5	+2.50	+2.5	455.0	565.0	390.00
Soyabeans (US)	164.0	+1.00	-4.0	177.0	244.0	151.00
Cotton A index (per lb)	53.15c	+0.50	-0.9	53.75	76.95	48.10
Wooltops (super, p/kg)	412.0	nc	-5.0	425.0	479.0	369.00
Coffee Futures (Sep)	$974	+5.00	-111.0	648	1295.00	540.00
Cocoa Futures (Sep)	807	nc	+25.0	970	993.00	746.00
Sugar Futures (White, Oct)	$285.8	+0.10	-0.1	237.3	317.00	181.4
FOEX PIX	$585.71	nc	-0.9	643.96	648.55	585.71
Reuters Comm index	1649.15	-7.99	-35.0	1516.55	1747.47	1493.44

Sources: LME/Amalgamated Metal Trading, lbma.org.HGCA, Petroleum Argus , UK power exchange, Platts, Global Coal, Reuters and Euronext.liffe. † US $ per metric tonne, week to date. ‡ CIF Rotterdam. ♠ CIF UK. t per tonne.

Fig. 14.2 Commodities (weekly)

London spot markets

Commodities price coverage on ft.com includes the spot markets – commodities available for delivery within two days. Generally, these figures represent the cost of actual physical material, exceptions being the London daily sugar prices and the cotton index, which are guide prices based on a selection of physical price indications. An example of spot markets is shown in Figure 14.3:

- **Prices and changes in price from the previous trading day:** figures are given for the principal crude oils, oil products, natural gas, electricity and coal, metals, sugar, grains, rubber, vegetable oils and oilseeds, cotton and wool.

SPOT MARKETS

■ CRUDE OIL FOB (per barrel) ‡		+or-
Dubai	$55.21-5.29	+1.8
Brent Blend (dated)	$58.99-9.05	+1.6
Brent Blend (Aug)	$60.55-0.59	+2.5
W.T.I.	$61.12-1.18	+1.5
■ OIL PRODUCTS NWE prompt delivery CIF (tonne)‡		
Unleaded Gas (95R)	$605-607	+5
Gas Oil (German Htg)	$555.5-57.5	nc
Heavy Fuel Oil	$251-253	-3
Naphtha	$478-480	+13
Jet fuel	$608.5-10.5	-1.2
Diesel (French) ‡	$584.5-86.5	nc
■ NATURAL GAS (Pence/therm)		
NBP ‡ (Aug)	31.75-32.00	-0.6
Euro (Zeebrugge) ‡	31.60-31.95	-0.4
■ ELECTRICITY & COAL		
UKPX Spot Index Φ	35.01	+0.4
Conti Power Index ✠	50.3910	nc
globalCOAL RB Index™ †	$52.22	+0.3
■ OTHER		
Platinum ‡	$862.0	-6.0
Palladium ‡	$181.5	+1.5
Tin (Kuala Lumpur)	7170r	-10
Tin (New York)	352.5c	-0.3
Lon day sugar (raw)	$262.7	+3.8
Lon day sugar (wte)	$316.5	+1.3
Maize (No3 Yellow) ♠	57.2	nc
Wheat (US Dark Nth)	103.4	nc
Rubber (KL RSS no1)	532.0m	-2.5
Coconut Oil (Phil)§	610.0	-10.0
Palm Oil (Malay.)§	420.0	+2.5
Copra (Phil)§	$353.0	nc
Soyabeans (US)	182.0	-3.0
Cotton 'A' index	57.10c	-0.5
Wooltops (64s Super)	399.0	nc

£ per tonne unless otherwise stated. ‡ 2pm Lon Fix US$ per troy oz. c cents/lb. r $ per tonne. m Malaysian cents/kg. § CIF Rotterdam. ♠ CIF UK Φ £/Mwh. ✠ €/Mwh. Source: Platts (020) 8543 1234. ‡ Source: Petroleum Argus (020) 7359 8792. French Diesel 50ppm. NBP National Balancing Point. † US $ per metric tonne, week to date. Prices at UK close unless otherwise stated.

Fig. 14.3 Spot markets

Commodity futures markets

As indicated, futures markets are chiefly used by consumers of physical commodities to avoid the risks of adverse price movements during the periods between contracting purchases and receiving deliveries. This hedging involves the opening of parallel but opposite futures contracts when physical orders are made, so that physical "profits" or "losses" made by the time the commodity is delivered will be cancelled out by losses or profits on the futures markets.

The futures markets are basically paper markets, not to be confused with forward physical prices, which are simply quotations for physical material for delivery some time in the future. Speculators take on the risk consumers wish to avoid in the hope of accruing the potential profits that the consumer has relinquished.

Coffee, cocoa and sugar

The main UK futures market for "soft" commodities (foodstuffs) is the London International Financial Futures and Options Exchange (LIFFE). Its core commodity contracts are in coffee, cocoa and sugar, prices for which are shown in Figure 14.4, plus prices for softs quoted elsewhere. The table has information on:

- **Contract size and pricing:** after the name of the commodity and the exchange on which it is traded is the size of the contract (how many tonnes, pounds, gallons or bushels of the commodity in a single contract) and the manner of pricing (for example, dollars or pounds per tonne).
- **Date:** the first column lists the expiry dates for the futures contracts currently in issue.
- **Settlement price:** the second column indicates the closing offer prices in the brokers' bid/offer spreads, the price at which they are prepared to sell a specific futures contract in these commodities. As usual with a spread, the bid prices will have been somewhat lower.
- **Day's change:** the third column indicates the change over closing offer prices on the preceding trading day.
- **High and low:** the fourth and fifth columns show the highest and lowest levels at which trades were executed during the day. It is possible for prices to close outside these ranges because they may move further near the end of the day without any business actually being done.
- **Volume:** the sixth column shows the actual number of lots or trading units that changed hands during the day.
- **Open interest:** the last column shows the number of lots of trading units up for sale or purchase during the day, not all of which will have actually been bought or sold.
- **ICCO and ICO:** indicator prices calculated by the International Cocoa Organization and the International Coffee Organization. These are related to price support systems, affecting changes in export quotas and buffer stock sales or purchases. Cocoa indicator prices are denominated in Special Drawing Rights (see Chapter 12) to prevent them from being too susceptible to currency movements.
- **Sugar futures:** the market for white (refined) sugar operates on an automated trading system, in which dealers operate from their offices via screens linked to a central computer. This contrasts with the open outcry "ring dealing" system of most other commodity markets.

A typical report on these soft commodity markets looks like this:

SOFTS

■ **COCOA** LIFFE (10 tonnes; £/tonne)

	Sett price	Day's change	High	Low	Vol 000s	O int 000s
Jul	834	+7	831	821	1.63	27.0
Sep	844	+8	844	830	3.01	62.2
Dec	866	+10	865	851	2.37	50.2
Mar	886	+10	884	871	1.52	27.9
May	899	+11	898	887	0.33	8.83
Jul	912	+11	908	898	0.08	17.5
Total					**9.17**	**215.4**

■ **COCOA** CSCE (10 tonnes; $/tonnes)

Jul	1378	+6	1372	1372	0.43	0.05
Sep	1398	+1	1403	1377	6.28	43.5
Dec	1431	+1	1437	1413	1.52	29.2
Mar	1460	+1	1463	1443	0.53	19.5
May	1480	+1	1475	1465	0.10	4.65
Jul	1501	+1	1502	1490	0.10	7.85
Total					**9.27**	**121.9**

■ **COCOA** (ICCO) (SDR's/tonne)

Jul 8	**Price**	**Prev. day**
Daily	1006.95	1019.35

■ **COFFEE** LIFFE (5 tonnes; $/tonne)

Jul	1204	-4	1217	1210	0.03	0.87
Sep	1234	-9	1248	1232	2.92	93.8
Nov	1251	-9	1264	1249	0.44	38.4
Jan	1262	-9	1270	1260	0.85	17.6
Mar	1273	-8	1281	1277	0.12	13.4
May	1286	-9	-	-	0	0.64
Total					**4.37**	**164.7**

■ **COFFEE 'C'** CSCE (37,500lbs; cents/lbs)

Jul	104.15	-0.35	105.00	105.00	0.03	0.20
Sep	106.90	-0.25	108.00	105.50	5.14	63.5
Dec	110.95	-0.10	111.90	110.25	2.04	17.0
Mar	114.50	-0.05	115.00	113.70	0.38	6.08
May	116.55	-	116.50	116.00	0.08	1.29
Jul	118.45	-	118.10	118.00	0.03	1.40
Total					**7.80**	**90.6**

■ **COFFEE** (ICO) (US cents/pound)

Jul 8	**Price**	**Prev. day**
Comp. daily	91.70	91.74

■ **WHITE SUGAR** LIFFE (50 tonnes; $/tonne)

Aug	302.0	+5.5	302.9	297.3	2.18	9.85
Oct	281.5	+5.5	282.0	276.9	3.55	18.3
Dec	272.4	+4.9	272.0	270.0	0.27	4.67
Mar	271.9	+5.2	271.0	269.0	0.14	3.84
May	270.6	+5.2	268.4	268.4	0.00	1.62
Aug	271.9	+5.2	270.0	268.6	0.18	1.95
Total					**6.63**	**42.8**

■ **SUGAR '11'** CSCE (112,000lbs; cents/lbs)

Oct	9.54	+0.17	9.55	9.45	16.3	245.8
Mar	9.59	+0.14	9.60	9.53	5.33	69.4
May	9.40	+0.13	9.41	9.34	0.76	31.5
Jul	9.20	+0.09	9.21	9.14	0.46	18.0
Oct	9.09	+0.06	9.09	9.06	0.44	11.2
Mar	9.09	+0.02	9.09	9.08	0.45	3.97
Total					**23.8**	**380.8**

■ **COTTON** NYCE (50,000lbs; cents/lbs)

Oct	53.80	-0.35	54.10	52.90	0.25	6.60
Dec	55.47	-0.41	55.80	54.60	6.57	75.8
Mar	57.60	-0.30	57.75	57.10	0.31	7.17
May	58.45	-0.30	-	-	0.03	1.29
Jul	59.35	-0.30	-	-	0.03	1.64
Total					**7.19**	**92.7**

■ **ORANGE JUICE** NYCE (15,000lbs; cents/lbs)

Jul	100.00	-3.50	100.00	98.00	0.02	0.04
Sep	102.45	-4.25	105.70	102.10	4.34	25.2
Nov	104.00	-3.50	106.75	103.25	1.32	6.46
Jan	105.25	-3.50	106.00	104.00	0.16	0.59
Mar	106.50	-3.50	106.50	106.25	0.29	0.89
Total					**6.13**	**33.3**

■ **RAPESEED** MATIF (8,000 kilos; €/Kilo)

Aug	214.25	-0.25	214.50	214.00	0.55	3.86
Nov	221.75	-0.75	222.25	221.50	0.07	8.71
Total					**0.66**	**16.7**

Open interest (O int) and Volume data shown for COMEX, NYMEX, CBT, NYBOT, CME & IPE Crude Oil are one day in arrears. Vol & O int totals are for all traded months. Due to exchange practices, the settlement price can be above the high or below the low.

Fig. 14.4 Softs

> Robusta coffee futures dropped 8 per cent to $1,076 a tonne yesterday, extending the 3.5 per cent drop from the previous session. Robusta prices struck $1,306 last month, their highest level since January 2005, on fears of a rare supply deficit. The peak marked an increase of 1.5 times from October's low of around $500.
>
> (*Financial Times*, 20 July 2005)

In this case, the futures price for coffee seems to have risen from fears of a future shortage of this commodity but has then fallen as those fears were allayed. The prices are following the simple laws of supply and demand: as supply (or anticipated supply) falls, the price rises; and vice versa.

Other commodities

The ft.com website also carries information on the International Petroleum Exchange (IPE) and its futures contracts in crude oil, gas oil and natural gas. Indeed, the North Sea oil price features daily on the front page of the newspaper in its world markets summary. This is because of the critical importance of oil prices to the world economy. High and rising prices are typically an indicator of bad times ahead. At the "macro" level, there is the threat to inflation and economic growth. The OECD rule of thumb warns that a $10 increase sustained for a year adds half a percentage point to inflation and knocks a quarter of a percentage point off growth. This in turn demands higher interest rates, with their typically negative effects on corporate profitability and share values.

High-priced oil also has a direct "micro" effect on profits since it is a significant input in many industries and eventually discourages firms from investing for the future. Airlines are the most obvious victims of the cost of jet fuel increases, but chemical producers that rely on oil as a raw material also suffer. And even service sector companies make some use of energy, whether for travel or simply running their offices. Understandably, the big increases in the price of oil in 2005 were a major news story:

> Warnings of a possible terror attack in Saudi Arabia and worries over Iran's resumption of its nuclear programme on Monday helped push crude prices to nominal records, with analysts warning that the market could soon breach the $65 a barrel level. Crude oil futures in New York soared close to $64 a barrel and US gasoline futures also reached new highs as an already tight oil market reacted to warnings from the US, Britain and Australia of possible terror attacks in Saudi Arabia, the world's biggest oil producer. Oil prices were further stoked as Iran resumed nuclear activities at a uranium conversion plant in Isfahan, a move which brings Tehran closer to the threat of United Nations sanctions. Oil traders are concerned that Iran's resumption of its nuclear programme could prompt the EU to back US calls for sanctions against the second largest oil producer in the Organisation of the Petroleum Exporting Countries.
>
> (*Financial Times*, 8 August 2005)

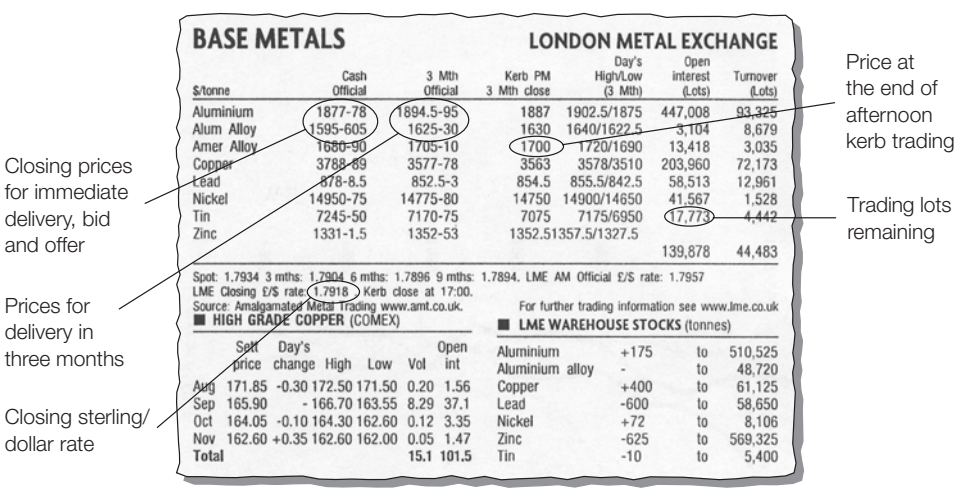
Of course, there are some beneficiaries from higher oil prices: companies in the oil sector itself, plus some of the electricity and gas firms that have both reduced their dependence on oil-powered plant and diversified into oil exploration and production. If other energy sources once again become important, companies developing solar, wind and hydro power may also benefit.

Metals

The London Metal Exchange

The main non-ferrous metals (aluminium, copper, lead, nickel, tin and zinc) are traded on the London Metal Exchange (LME). Although it has always operated as a futures market, the LME has traditionally had a closer relationship with the physical trade than other London markets. The LME is claimed to account for 70 to 80 per cent of the turnover of the physical trade in metals. Only in 1987 did new investor protection legislation force the LME to abandon its cherished principal trading system in favour of the central clearing system used by the other commodity futures markets. Figure 14.5 shows the LME listing from the daily commodity prices listing on ft.com:

- **Cash official** and **three-month official:** these are price indicators as on the LIFFE, showing both bid and offer prices. The prices are for immediate delivery and for delivery in three months. The futures price is for a standard contract of metal of a defined grade. It is generally higher than the spot price, a phenomenon known as "contango" or "forwardation". The reverse, where the spot price stands at a premium over the futures price, is called "backwardation".



BASE METALS — LONDON METAL EXCHANGE

$/tonne	Cash Official	3 Mth Official	Kerb PM 3 Mth close	Day's High/Low (3 Mth)	Open interest (Lots)	Turnover (Lots)
Aluminium	1877-78	1894.5-95	1887	1902.5/1875	447,008	93,325
Alum Alloy	1595-605	1625-30	1630	1640/1622.5	3,104	8,679
Amer Alloy	1680-90	1705-10	1700	1720/1690	13,418	3,035
Copper	3788-89	3577-78	3563	3578/3510	203,960	72,173
Lead	878-8.5	852.5-3	854.5	855.5/842.5	58,513	12,961
Nickel	14950-75	14775-80	14750	14900/14650	41,567	1,528
Tin	7245-50	7170-75	7075	7175/6950	17,773	4,442
Zinc	1331-1.5	1352-53	1352.5	1357.5/1327.5		
					139,878	44,483

Spot: 1.7934 3 mths: 1.7904 6 mths: 1.7896 9 mths: 1.7894. LME AM Official £/$ rate: 1.7957
LME Closing £/$ rate: 1.7918 Kerb close at 17:00.
Source: Amalgamated Metal Trading www.amt.co.uk.
For further trading information see www.lme.co.uk

■ HIGH GRADE COPPER (COMEX)

	Sett price	Day's change	High	Low	Vol	Open int
Aug	171.85	-0.30	172.50	171.50	0.20	1.56
Sep	165.90	-	166.70	163.55	8.29	37.1
Oct	164.05	-0.10	164.30	162.60	0.12	3.35
Nov	162.60	+0.35	162.60	162.00	0.05	1.47
Total					15.1	101.5

■ LME WAREHOUSE STOCKS (tonnes)

Aluminium	+175	to	510,525
Aluminium alloy	-	to	48,720
Copper	+400	to	61,125
Lead	-600	to	58,650
Nickel	+72	to	8,106
Zinc	-625	to	569,325
Tin	-10	to	5,400

Fig. 14.5 London Metal Exchange on ft.com

- **Kerb PM three-month close:** afternoon trading on the exchange officially ends at 4.30pm and prices at the close are widely used for industrial supply contract pricing. But this is followed by 30 minutes of after-hours dealing, known as the kerb session because it used to be conducted on the street outside the exchange. Kerb trading continues until 5pm with each metal phasing out from 4.45pm. This column carries the final prices from this session.
- **Day's high/low:** the highest and lowest futures price for the day's trading.
- **Open interest:** the number of trading lots that remain to be covered by opposite transactions or physical delivery. Lot sizes are 25 tonnes, except for nickel where it is 6 tonnes.
- **Turnover:** the number of trading lots traded that day.
- **LME closing:** this gives the sterling/dollar rates published by the exchange at the unofficial close. This can be used to translate LME prices for contract purposes.
- **LME warehouse stocks:** the stock and day's change in the warehouse.

Gold

Twice a day, at 10.30am and 3pm, representatives of the major bullion dealers meet at the offices of NM Rothschild to set the fixing price of a troy ounce of gold, and a substantial number of transactions tend to take place at the fixing sessions. Figure 14.6 (which can be found on ft.com) shows the London bullion market listing.

LONDON BULLION MARKET

Gold(Troy oz)	$ price	£ equiv	€ equiv
Close	422.90-423.60		
Opening	423.40-423.90		
Morning fix	423.75	243.88	355.79
Afternoon fix	424.40	243.35	354.11
Day's High	424.80		
Day's Low	422.20		
Previous close	423.30-424.00		

Loco Ldn Mean Gold Lending Rates (v US$)

1 mth	3.26	6 mths	3.62
3 mths	3.42	12 mths	3.75

Gold Leasing Rates (v US$)

1 mth	-0.06	6 mths	-0.02
3 mths	-0.02	12 mths	0.05

Silver Fix	p/troy oz	US cts equiv.
Spot	400.37	694.25

Silver Lending Rates

1 mth	3.25	6 mths	2.90
3 mths	3.10	12 mths	1.95

Sources: London Bullion Market Association, Reuters. Gold Fix at 10:30 & 15:00. Silver Fix at 12:00. Closing figures at 17:00.

Fig. 14.6 London bullion market on ft.com

Reading the figures

- **Gold:** morning and afternoon fixing prices in dollars per troy ounce (with sterling and euro conversions), as well as early and late prices for the London market. As with currency markets, there is no official close although the word is used to describe the late price.

- **Loco London mean gold lending rates:** familiarly known as "Gold Libor", these are the interest rates at which large gold holders, principally central banks, will lend gold held in their reserves to approved borrowers, principally miners, who repay the loans from future production. The low rates on offer reflect the highly secure nature of the loans and the extra cost to the borrower of the spread between the bid and offer price on the gold market, usually about $2.50 an ounce.
- **Silver fix** and **silver lending rates:** prices at the morning silver fix in pence per troy ounce, with US cents equivalents; and interest rates at which silver holders will lend silver.

Using the information

The gold market can be attractive for some investors and speculators. The price of gold is affected by a wide range of factors, moving up and down with bond yields, interest rates and exchange rates. Gold does not pay interest, and so its price is likely to be higher with lower interest rates. Gold is often a safer asset when there is upward pressure on inflation. But it is also a currency risk for non-US investors because its price is always denominated in dollars. Given the relatively small number of players in the gold markets, the price can be significantly influenced by individuals.

Enthusiasts for gold are known as "goldbugs". They see the yellow metal as nature's own store of value, which is far superior to the corrupt paper money churned out on high-speed printing presses controlled by politicians.

A typical report on the precious metals markets looks like this, an indication of what kind of economic and political factors affect the markets for gold, platinum, etc.:

> Precious metals prices gained on Tuesday on threats of gold supply disruption in South Africa, while Japanese speculative investor activity in platinum sent the metal to a 15-month high. Gold prices hit a four-week high of $433 a troy ounce after South Africa's National Union of Mineworkers said a national strike at the country's gold mines would be launched on Sunday after a breakdown over wage talks with employer groups.
>
> Platinum prices hit a high of $909 a troy ounce following increased speculative activity on the Tokyo Commodity Exchange, the world's largest platinum futures exchange. Potential supply disruption is also a factor behind the rise in platinum prices. Wage talks between Anglo Platinum, the world's largest platinum producer, and mine unions reached a deadlock last week. (*Financial Times*, 2 August 2005)

PRECIOUS METALS

GOLD COMEX (100 Troy oz; $/troy oz)

	Sett price	Day's chge	High	low	Vol 000s	O int 000s
Aug	423.8	-0.4	425.8	422.3	59.9	189.8
Oct	426.7	-0.4	429.0	425.3	0.30	8.75
Total					**62.8**	**275.7**

PLATINUM NYMEX (50 Troy oz; $/troy oz)

Jul	863.2	-	870.0	864.5	0.01	0.15
Oct	862.2	-	867.2	860.5	1.14	8.22
Total					**1.15**	**8.44**

PALLADIUM NYMEX (100 Troy oz; $/troy oz)

Sep	185.60	+1.90	186.00	182.00	0.54	13.2
Dec	187.60	+1.90	185.70	185.70	0.00	0.45
Total					**0.54**	**13.6**

SILVER COMEX (5,000 Troy oz; Cents/troy oz)

Jul	699.4	+4.5	702.0	691.5	0.13	0.82
Sep	703.0	+4.5	707.0	694.0	14.4	77.8
Total					**15.8**	**123.4**

ENERGY

CRUDE OIL NYMEX (1,000 barrels. $/barrel)

	Sett price	Day's change	High	Low	Vol 000s	O int 000s
Aug	59.63	-1.10	61.90	59.55	133.5	192.5
Sep	60.64	-1.04	62.80	60.50	73.1	147.9
Oct	61.29	-1.04	63.40	61.30	20.7	52.9
Nov	61.69	-1.05	63.68	61.55	5.24	24.3
Total					**275.7**	**826.0**

CRUDE OIL IPE ($/barrel)

Aug	58.20	-1.08	60.36	58.04	58.1	65.0
Sep	59.16	-1.08	61.29	59.00	54.3	112.5
Oct	59.97	-0.99	61.98	59.74	23.2	45.4
Nov	60.44	-0.97	62.40	60.30	8.74	22.3
Total					**159.3**	**368.0**

HEATING OIL NYMEX (42,000 US galls; c/US galls)

Aug	171.81	-5.68	179.40	171.30	29.7	73.4
Sep	174.26	-5.03	181.60	173.70	10.7	30.7
Oct	176.31	-5.03	182.80	177.30	4.79	14.2
Nov	178.76	-5.03	185.75	181.50	1.49	7.48
Total					**52.4**	**189.7**

GAS OIL IPE ($/tonne)

	Sett price	Day's change	High	Low	Vol 000s	O int 000s
Jul	547.25	+3.00	566.75	542.75	16.0	23.5
Aug	555.00	+3.75	574.25	549.75	25.1	63.9
Sep	562.50	+4.25	577.25	557.25	11.8	32.1
Oct	566.50	+4.00	581.25	562.00	3.66	14.1
Total					**60.7**	**235.0**

NATURAL GAS IPE (1,000 therms; p per therm)

Aug	31.89	-0.32	32.15	31.70	0.38	4.49
Sep	33.50	+0.10	33.50	33.30	0.06	2.85
Total					**1.17**	**24.5**

NATURAL GAS NYMEX (10,000 mmBtu; $/mmBtu.)

	Sett price	Day's change	High	Low	Vol 000s	O int 000s
Aug	7.472	+0.074	7.770	7.360	32.5	71.5
Sep	7.530	+0.082	7.790	7.411	10.4	56.4
Oct	7.578	+0.075	7.820	7.464	12.3	48.4
Nov	8.133	+0.040	8.350	8.056	4.53	24.1
Total					**78.1**	**484.6**

UNLEADED GASOLINE
NYMEX (42,000 US galls.; c/US galls.)

Aug	176.34	-4.22	186.00	176.00	34.8	66.4
Sep	171.87	-1.98	178.00	171.00	14.6	36.2
Oct	159.57	-0.93	163.50	159.99	5.87	18.2
Nov	158.82	-1.08	161.90	159.90	0.24	5.65
Total					**57.2**	**156.1**

MEAT & LIVESTOCK

LIVE CATTLE CME (40,000lbs; cents/lbs)

	Sett Price	Day's change	High	Low	Vol 000s	O int 000s
Aug	79.350	-0.750	80.575	79.200	11.0	67.6
Oct	83.150	-0.250	83.750	83.025	6.61	28.7
Dec	85.125	-0.125	85.600	85.050	2.47	16.3
Feb	87.125	-0.125	87.525	87.000	0.79	8.70
Total					**20.7**	**124.5**

LEAN HOGS CME (40,000lbs; cents/lbs)

Jul	68.100	-0.250	68.900	68.000	2.64	5.96
Aug	66.825	-1.350	68.450	66.600	9.83	47.9
Oct	58.900	-0.200	59.700	58.650	5.48	27.1
Dec	55.350	-0.350	56.500	55.200	0.76	12.4
Total					**19.0**	**98.3**

PORK BELLIES CME (40,000lbs; cents/lbs)

Jul	59.425	+0.775	60.000	57.550	0.09	0.16
Aug	60.100	+1.425	60.675	58.800	0.45	2.54
Feb	79.400	+1.700	79.700	77.700	0.06	0.20
Total					**0.60**	**2.92**

FUTURES DATA
All futures data supplied by Reuters.

GRAINS & OIL SEEDS

WHEAT LIFFE (100 tonnes; £ per tonne)

	Sett price	Day's chge	High	Low	Vol 000s	O int 000s
Sep	66.50	-	-	-	0	0.02
Nov	68.50	-	68.50	68.50	0.03	3.73
Jan	70.00	-	-	-	0	0.61
Mar	71.50	-			0	0.50
Total					**0.03**	**8.23**

WHEAT CBT (5,000bu min; cents/60lb bushel)

Jul	328.50	-6.25	333.00	328.00	1.27	1.23
Sep	337.25	-6.75	342.50	336.75	21.3	158.6
Dec	351.25	-6.00	355.75	350.50	5.40	55.7
Mar	362.50	-6.50	367.00	362.00	1.97	11.7
May	366.00	-6.00	366.00	366.00	0.10	0.62
Jul	368.50	-3.00	369.50	367.00	0.26	3.73
Total					**30.3**	**231.8**

MAIZE CBT (5,000 bu min; cents/56lb bushel)

Jul	226.25	-7.50	233.75	224.00	11.0	6.60
Sep	234.75	-7.00	240.75	233.00	42.8	309.1
Dec	246.25	-6.75	251.75	243.00	75.8	285.5
Mar	253.00	-7.00	256.75	250.75	4.41	39.1
May	256.00	-7.00	259.25	254.00	0.54	6.39
Jul	259.00	-6.50	263.00	258.00	1.01	14.1
Total					**138.3**	**684.1**

SOYABEANS CBT (5,000bu min; cents/60lb bushel)

Jul	675.50	-16.50	683.00	666.00	8.58	5.71
Aug	678.00	-16.50	689.00	669.00	21.8	38.5
Sep	681.25	-18.25	692.00	671.50	3.03	14.3
Nov	688.00	-19.50	701.00	677.00	56.5	185.9
Jan	689.00	-19.00	701.00	680.00	0.73	11.0
Mar	680.00	-21.50	693.25	673.00	0.30	10.5
Total					**92.8**	**283.1**

SOYABEAN OIL CBT (60,000lbs: cents/lb)

Jul	24.55	-0.60	25.15	24.40	1.97	5.06
Aug	24.63	-0.56	25.07	24.40	8.33	30.0
Sep	24.76	-0.58	25.17	24.50	1.33	16.5
Oct	24.78	-0.62	25.00	24.58	0.17	8.25
Dec	24.93	-0.60	25.47	24.65	11.1	87.4
Jan	24.90	-0.64	24.90	24.90	0.17	2.13
Total					**23.9**	**157.7**

SOYABEAN MEAL CBT (100 tons; $/ton)

Jul	211.3	-3.3	213.5	208.0	3.67	3.65
Aug	211.0	-3.3	214.6	207.5	11.7	28.4
Sep	211.3	-3.5	214.8	208.0	2.27	13.9
Oct	211.0	-3.3	212.0	207.0	0.81	10.2
Dec	212.8	-3.8	215.5	208.5	9.83	52.0
Jan	211.5	-4.5	213.0	209.0	0.20	3.16
Total					**29.5**	**125.8**

Fig. 14.7 Commodity prices on New York and Chicago exchanges from ft.com: precious metals, meat and livestock, energy, grains and oil seeds

Other key commodity markets

The markets in New York and Chicago

The *Financial Times* also covers commodities futures markets in the United States. These are of interest to many readers, including traders in the commodities and outside speculators following the markets on both sides of the Atlantic. These markets are also, of course, the original futures markets and are still very influential because of that. Extracts from the New York and Chicago exchanges on ft.com are shown in Figure 14.7.

In New York, the exchanges covered are:

- **The Commodity Exchange (Comex)**: for copper, silver and gold. The price of gold on the Comex is a widespread reference, and is noted daily on the front page of the newspaper.
- **The New York Mercantile Exchange (Nymex)**: for platinum, palladium, crude oil, natural gas, unleaded gasoline and heating oil.
- **The Cocoa, Sugar and Coffee Exchange (CSCE)**.
- **The Cotton Exchange (NYCE):** this also trades frozen concentrated orange juice.

In Chicago, prices are quoted from:

- **The Chicago Mercantile Exchange (CME or Merc):** for live cattle, lean hogs and pork bellies.
- **The Chicago Board of Trade (CBT):** for maize, wheat, soyabeans, soyabean meal and soyabean oil.

The many other US markets are not covered because they are too small or primarily of interest to domestic US consumers.

Commodity indices

The commodity price data published daily in the newspaper include four indices (see Figure 14.8):

- **Reuters:** this index is calculated from sterling prices for 17 primary commodities, weighted by their relative importance in international trade. For this and the other three indices, values are given for the last two days, a month ago and a year ago.
- **DBLCI-MR Total Return:** the Deutsche Bank Liquid Commodity Index-Mean Reversion index, which tracks the performance of investments in a small set of liquid commodities: sweet light crude oil, heating oil, aluminium, gold, wheat and corn.
- **CRB Futures:** an index of 21 commodity futures prices compiled by the New York-based Commodities Research Bureau. Each commodity gets equal weight; and the index is dominated by food prices with a weight of 57 per cent.
- **GSCI Total Return:** a commodity spot price index produced by Goldman Sachs.

INDICES

■ **Reuters** (Base: 18/9/31 = 100)

Aug 23	Aug 22	month ago	year ago
1659.69	1658.10	1687.18	1539.70

■ **DBLCI-MR Total Return** (Base: 1/12/88 = 100)

Aug 22	Aug 19	month ago	year ago
867.63	863.88	871.08	815.15

■ **CRB Futures** (Base: 1967 = 100)

317.12	315.18	305.29	277.64

■ **GSCI Total Return** (Base: 1970 = 100)

6937.65	6841.63	6308.83	5594.51

Fig. 14.8 Commodity price indices

PART 3

Understanding the economies

“Economists don’t know very much. And other people know even less.”

Herbert Stein

“An economist is an expert who will know tomorrow why the things he predicted yesterday didn’t happen today.”

Laurence J Peter

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UK economic indicators

- **Gross domestic product** – the country's national accounts: consumption and investment; government policy and the business cycle; output by market sector
- **Production and employment** – key indicators of real economic performance: industrial production and manufacturing output; retail sales and consumer confidence; the labour market
- **Inflation** – rates of price changes: the retail prices index; inflation versus unemployment; competitiveness
- **External trade** – the balance of payments
- **The economy and the markets** – the impact of interest rates

In addition to the regular coverage of the financial markets, the *Financial Times* also reports on the progress of other key markets. These include the product and labour markets, as well as the overall economies of the United Kingdom, Europe and the world. Almost every day sees publication of new facts and figures for one economic indicator or another: consumer credit, industrial production, retail sales, unemployment, inflation, the balance of payments, and so on. These indicators all interact with, and have effects on, the financial markets and, as a result, it is vital to understand their implications when making business and investment decisions.

For the UK economy, *Financial Times* coverage is particularly intense. Each month, a wealth of figures is produced by the Office for National Statistics (ONS), the government department responsible for compiling economic statistics. These official figures, many with track records that go back decades, together throw light on the state of the economy, indicating to businesses, consumers and the government whether the economy is in recession, growing or at a turning point. The *Financial Times* tracks most of these monthly and quarterly data, together with unofficial but longstanding and widely regarded economic surveys produced by bodies such as the Confederation of British Industry (CBI).

The data compiled by the ONS usually refer to the previous month's economic activity. They are collected through nationwide surveys with the results analysed by teams of statisticians. By the time the figures are announced to the public, they have generally been "smoothed" to take account of seasonal patterns and to give a clearer picture of the underlying trend. For example, average earnings figures are "seasonally adjusted" for the extra hours worked in retailing and postal services in the period before Christmas.

Many of the figures are presented as indices, assuming constant prices from a given date. The reference date is arbitrary and merely provides a convenient landmark for comparison. What matters is not the index numbers themselves but the change from one period to the next. Figures for such key economic indicators as unemployment, inflation, output and gross domestic product (GDP) are especially likely to make the headlines, particularly when the monthly or quarterly changes are sharp.

Economic news reports appear in the first section of the *Financial Times* the day after they are released by the ONS. The following are the indicators that are most likely to be reported in the press as well as to provoke public interest.

Gross domestic product

Gross domestic product measures overall economic activity in a country and is calculated by adding together the total value of annual output of goods and services. GDP can also be measured by income to the factors producing the output (essentially capital and labour) or expenditure by individuals, businesses and the government on that output. Real GDP means that the figures are adjusted for the effects of inflation from what is

known as nominal GDP. The growth rate is the percentage change over the corresponding point in the previous year.

GDP can be broken down into four components:

- **Private consumption:** the percentage of GDP made up of consumer spending on goods and services. These figures typically include imputed rents on owner-occupied housing, but not interest payments, purchases of buildings or land, transfers abroad, business expenditure, buying of second-hand goods or government consumption.
- **Total investment:** the percentage of GDP made up of capital investment (as opposed to financial investment) by both the private and public sectors. This is spending on new factories, machinery, equipment, buildings, roads, accommodation, raw materials, etc. "Gross domestic fixed capital formation", as investment is sometimes termed, is a key component of current growth of GDP as well as a critical foundation for future expansion. Obviously, investment in machines has greater potential for future output than that of houses, though the contribution of infrastructure such as roads may be harder to assess.
- **Government consumption:** the percentage of GDP made up of consumer spending by the public sector. Government spending on such items as infrastructure is accounted in these figures under total investment, though in some presentations of GDP, government spending encompasses both consumption and investment.
- **Net exports:** the percentage of GDP made up of the difference between the value of national exports of goods and services and that of imports. In current prices, this balance of trade in goods and services (the current account of the balance of payments) in the United Kingdom is typically negative, with the value of imports exceeding that of exports.

A month after the end of each quarter, the ONS produces a provisional estimate of GDP based on output data, such as industrial production and retail sales (see below). A month later the ONS provides a further estimate taking account of income and expenditure data. Finally, one month after that, the full national accounts are produced based on complete information. As well as revisions to the provisional GDP figures, the national accounts show a full breakdown of economic activity during the previous quarter by sector, and identify trends in such GDP components as personal disposable income, personal consumption and savings, and fixed investment and stock building. The ONS publication that contains the annual UK national accounts is known as the *Blue Book*.

When the level of GDP falls compared with the previous quarter, the economy is said to be contracting. Two consecutive quarterly falls, and it is said to be in recession. When GDP rises quarter to quarter, the economy is expanding. The movement of GDP from slump to recovery to boom to recession to slump again is known as the business cycle. Government macroeconomic policy is often aimed at smoothing this cycle, easing the pain of recession and applying restraint when the economy is in danger of overheating. This would typically be done through fiscal policy (boosting public expenditure and cutting taxes, or the reverse) or monetary policy (loosening or tightening the money supply, perhaps through lowering or raising interest rates).

Private consumption is a function of personal disposable income, the amount of income available to households after payment of income taxes and national insurance contributions. The other side of this coin is personal savings, the difference between consumer income and consumer spending. This can be either actual savings held in a deposit account or repayments of debt. The savings ratio is the proportion of income that is saved expressed as a percentage of personal disposable income.

Investment is also the twin of savings. By definition, investment equals savings: leaving exports and imports out of the picture, if consumption plus savings equals total income, income equals expenditure, and consumption (household and government) plus investment (private and public) equals expenditure, then investment and savings are equivalent. What happens is that income saved rather than consumed is available for investment: savings and investment are both about deferring current consumption for future prospects of consumption.

The fourth element of total GDP arises from the fact that the economy is open to international trade and financial flows. Exports contribute to growth; in contrast, imports can stifle it, reducing increases in national output relative to growth in demand. For example, increasing imports might suggest that demand is outstripping what can be provided by domestic output. Longer-term increases in imports might imply declining competitiveness on the part of national industries. If the level of imports is consistently and substantially higher than that of exports, and the deficit is not balanced by net inflows of interest, profits, dividends, rents and transfer payments, the current account balance stays in deficit. This can be financed in the capital account temporarily, but longer-term a deficit leads to exchange rate problems, as discussed in Chapter 12.

In terms of the state of the economy, growth in personal consumption often leads a general recovery from recession, encouraging manufacturers to invest. Accounting for around 60 per cent of total GDP in most industrialised countries, it is clearly a critical target of government macroeconomic policy. But if consumption grows faster than productive capacity, imports are sucked into the national economy. This can have adverse implications both for the balance of payments and for domestic inflation, where prices of imported goods drive up the general price level.

Government policy and the business cycle

Clearly a vital component of GDP is government spending on both consumption and investment. As shown in Chapter 4, this is financed by taxation of individuals and corporations. The difference between government revenues and income is known as the public sector net cash requirement. Forecasts for this and other elements of the economy are published by the Treasury at the time of the annual government budget in March in what is known as the *Red Book*.

Monthly figures for the public sector net cash requirement show how much the government has borrowed or paid back in one month. When tax revenues are weak and government spending high, for example in a recession, the deficit is likely to grow. It will

narrow once the economy picks up and tax revenues rise again as more people find jobs. Thus, the state of public sector finances is, in part, dependent on the state of economic activity: this part of the deficit is referred to as the "cyclical" deficit. However, governments also incur persistent debts by systematically spending more than they collect in tax revenues: this part of the deficit, which exists regardless of economic activity, is referred to as the "structural" deficit.

Government policy on the public sector net cash requirement has two basic effects on the economy. The first is through fiscal policy: if the deficit is increased in times of stagnant or falling output and high unemployment, the directly higher spending of the government and/or the indirectly higher spending of consumers resulting from their lower taxes and greater disposable incomes stimulate demand. Through various multiplier effects, this can lead to recovery, increased output, reduced unemployment and growth. However, the second effect may temper this: high, persistent and/or growing annual deficits may drive up the cost of borrowing, discouraging both consumption and investment. Governments are frequently torn between the conflicting effects of the macroeconomic policies at their disposal.

The pattern of the business cycle, whether influenced by government policy or not, is shown by cyclical indicators, produced once a month by the ONS. These monitor and predict changes in the UK economy; based on series that are good leading indicators of turning points in GDP, such as business and consumer confidence surveys, they provide early indications of cyclical turning points in economic activity. In addition to these and the Treasury's predictions for the UK economy, hundreds of other private and public bodies produce their own forecasts, ranging from City analysts to independent think-tanks. The OECD also produces a forecast for the UK economy.

Output by market sector

In addition to the breakdown of GDP by consumption, investment, government activity and international trade, the ONS produces a breakdown by output of various market sectors. The main sectors can be analysed by comparing their percentage change over a period with the percentage change in overall GDP: relatively faster growing sectors, for example, are making a more substantial contribution to overall growth. A given percentage change in a dominant sector naturally has a larger effect on total activity than that of a less important sector. This point is particularly important to bear in mind when comparing the relative importance of certain sectors in different countries, and the changes of those sectors' importance. For example, a shifting balance from the manufacturing sector to the services sector is often noted in mature economies. Developing countries in contrast are more likely to be starting with agriculture and shifting to manufacturing.

Production and employment

The overall national accounts figures give a broad historic picture of the state of the economy while the output figures break it down by market sector. Figures for production and employment focus on key indicators of national economic performance that generally appear in advance of detailed GDP figures. These too are often leading indicators of the prospects for the economy.

Each month, the ONS estimates the output of UK manufacturing industry and the level of energy production in the previous month. These come together as the index of output of the production industries. The two components are usually quoted separately because oil and gas output are often erratic and can easily distort the underlying performance of manufacturing industry. Repairs to oil installations in the North Sea, for example, can bring energy production sharply down in one month.

As well as monthly rises in output, the ONS compares output with the levels of a year ago and output in the latest three months (compared with the previous three months) to give a better idea of underlying trends. Industrial production is strongly indicative of the state of the economic cycle, since the output of industries producing capital goods and consumer durables is most reduced during a recession. While the monthly net output of physical goods in the United Kingdom represents only a quarter of total output, industrial production remains an important monthly indicator of the overall level of activity in the economy. Retail sales also act as a leading indicator, functioning as a proxy for consumer spending in the eventual GDP figures.

Of all the monthly economic indicators the ONS pumps out, the statistics for industrial output are probably the most useful for evaluating particular equity investments. They offer precise data on the performance of the various sectors that constitute the production industries: the four categories that make up manufacturing – durable goods such as cars; non-durables like clothing and footwear, and food, drink and tobacco; investment goods such as electrical equipment; and intermediate goods like fuels and materials – plus mining and quarrying, which includes oil and gas extraction; and electricity, gas and water.

A number of surveys, produced by bodies such as the CBI, supplement the regular *Financial Times* reporting of UK economic statistics. One of the most important is the CBI's quarterly industrial trends survey of manufacturers. This gives a strong indication of future trends in manufacturing output. By questioning up to 1,300 manufacturing companies about their recent and anticipated output, orders, employment, investment, exports, prices and costs, the survey provides a comprehensive "bottom-up" view of changing business expectations. With each variable, firms are asked whether they expect the direction of change to be up, down or the same over the coming four months. The results are summarised as a "balance" – the percentage of firms reporting up, less the percentage reporting down.

The British Chamber of Commerce also carries out a quarterly economic survey of its members: unlike the CBI industrial trends survey, this includes the service sector. The CBI also does a monthly inquiry into the state of the distributive trades sector (mainly wholesalers and retailers) that supplements official information on retail sales.

Retail sales and consumer confidence

The level of retail sales is another important leading indicator, and one that receives considerable media attention. Encompassing up to a half of all consumer spending in the eventual figures for GDP (most of the rest is spent in the service sector and on accommodation), the volume and value of retail sales are indicators of consumer confidence and demand. For example, a significant upturn in retail sales will typically lead to higher wholesale sales, to more factory orders and eventually to increased production. Figures for retail stocks and retail orders will also give some indication of the pace of demand.

The pattern of retail sales is influenced by a wide range of factors, many of which affect different sectors in different ways, according to the characteristics of the products. For example, seasonality is very important with some goods: off-licences will expect to see sales volume jump at Christmas or during a long hot summer; grocers, however, can expect fairly consistent demand throughout the year.

Figures on retail sales should be examined very carefully by the companies that support and supply retailers. For example, the results of the CBI's distributive trades survey of over 500 retailers, wholesalers and motor traders will indicate whether consumer demand for their products is growing or declining. Since the data are available relatively quickly, supplying companies are able to adjust their output quite flexibly.

A related indicator is the UK "consumer confidence barometer", published monthly for the European Commission by market researchers GfK, who survey a representative sample of over 2,000 consumers. These people are asked about the economy and their own financial situations, both looking back over the last 12 months and forward to the next 12, and including their expectations for employment and inflation and whether they intend to make any major purchases. The responses generate an overall indicator of consumer sentiment, which subtracts those feeling pessimistic about the future from those feeling optimistic.

The labour market

The production and employment data also include two important indicators of the state of the labour market: the unemployment rate and the vacancy rate. Variants of these measures also appear regularly:

- **Registered unemployment:** the total number of people (in thousands, and excluding school leavers) who were out of work and claiming unemployment benefit in the previous period. The figure is seasonally adjusted to take account of annual fluctuations, such as at the end of the academic year when school leavers flood the jobs market.
- **Unfilled vacancies:** vacancies (in thousands) notified to Department for Work and Pensions job centres, about one-third of the total vacancies in the economy. The change in the number of vacancies is seen as an important indicator of future employment trends.

Figures for unemployment and vacancies, as well as average earnings and unit wage costs, are provided by the Department for Work and Pensions. The measure of unemployment, known as the claimant count, is often criticised for excluding large numbers of people who cannot find jobs but who are not eligible for unemployment benefit. Thus women seeking to return to work, the self-employed and 16- and 17-year-old school leavers do not show up in the official count.

There are clearly more people unemployed than the official figures suggest. Every quarter, the ONS carries out a survey of the labour force, designed to capture those unemployed people who are left out of the claimant count. The Labour Force Survey (LFS) uses the International Labour Office measure of unemployment, an internationally recognised definition. It refers to people who were available to start work in the two weeks following their LFS interview and had either looked for work in the four weeks prior to interview or were waiting to start a job they had already obtained.

There is often a difference between the unemployment total revealed by the claimant count measure and the total arrived at by the LFS. The discrepancy between the two measures is usually greatest at a time of economic expansion when people feel encouraged to go out and look for work.

ONS statistics cover very detailed aspects of the labour market, including breakdowns of unemployment by age, sex and region of the country. One example of the implications of such breakdowns is that a drop in the number of young unemployed men is usually regarded as a sign of economic recovery.

Inflation

A number of measures of inflation – rates of change of prices – in the UK are published by the ONS:

- **Consumer prices index (CPI):** this is the measure adopted by the government for its inflation target, an internationally comparable measure of inflation. The Bank of England's Monetary Policy Committee is required to achieve a target of 2 per cent, subject to a margin of one percentage point on either side. Prior to 10 December 2003, the CPI was published in the UK as the harmonised index of consumer prices (HICP).
- **Retail prices index (RPI):** an index of the average change in the prices of millions of consumer purchases represented by a "basket" of goods. Until the introduction of the CPI, this was the most widely quoted index of inflation, sometimes referred to as the headline rate of inflation.
- **RPIX change:** the essential element to note is the change in the RPI year to year: if inflation is 4 per cent, this means that the RPI has risen by 4 per cent since the same month of the previous year; the average basket of goods is 4 per cent more expensive. RPIX excludes mortgage interest payments.

- **Earnings growth:** the monthly labour market statistics for growth in average earnings cover the whole economy, including both the service and manufacturing sectors. In addition to basic wages, earnings include overtime payments, grading increments, bonuses and other incentive payments. For this reason, earnings increases usually exceed settlement increases and wage claims.

The retail prices index

The ONS used to get more queries from the public about the RPI than any other statistic, a reflection of the influence inflation has on everyone's life. For example, inflation determines the real value of savings, affects increases in pensions and other state benefits and plays an important part in wage bargaining.

The index is compiled by tracking the prices of a "basket" of goods, which represents spending by the typical UK family. All types of household spending are represented by the basket apart from a handful of exceptions, including savings and investments, charges for credit, betting and cash gifts. Indirect taxes such as value-added tax (VAT) are included, but income tax and national insurance payments are not: direct taxes are sometimes accounted for in a separate index, the tax and price index.

The average change in the price of the RPI basket is calculated from the findings of government price collectors. Each month, they visit or telephone a variety of shops, gathering about 130,000 prices for different goods and services. They go to the same places and note the prices of the same things each month so that over time they compare like with like. Information on charges for gas, water, newspapers, council rents and rail fares are obtained from central sources. Some big chain stores, which charge the same prices at their various branches, help by sending information direct from their headquarters to the ONS.

The components of the RPI are weighted to ensure that the index reflects average household spending. Thus housing expenditure has a much greater weighting than cinema tickets; the biggest weightings currently go to housing, food and motoring. The weights are obtained from a number of sources but mainly from the Family Expenditure Survey. For this, a sample of 7,000 households across the country keep records of what they spend over a fortnight plus details of big purchases over a longer period. The spending of two groups of people is excluded on the grounds that their pattern of spending is significantly different from most people's: families with the top 4 per cent of incomes and low income pensioners who depend mainly on state benefits.

Every year the components and the weightings of the RPI are reviewed to take account of changing spending habits. Over the past few years, microwave ovens, video recorders and compact discs have been introduced, while black and white televisions were dropped when sales declined.

In addition to the "all-items" index, the ONS publishes the RPI excluding mortgage interest payments (RPIX), an underlying measure of inflation. It does this because a cut or rise in interest rates automatically influences mortgage interest payments. These have a higher

weighting than any other component of the RPI and, as a result, have a strong bearing on the direction of the index. Excluding mortgage interest payments from the standard index prevents interest rate changes obscuring the underlying pattern of price changes.

Inflation versus unemployment

A key economic debate is over the causes of, and relationship between, inflation and unemployment; in particular, whether there is a trade-off between them. This trade-off begins with the questions of which is worse, economically, socially and politically, and which therefore should be the primary goal of economic policy. Over the past decade, western governments have tended to argue that it is the control of inflation that should come first, traditionally the viewpoint of the political centre-right. Inflation makes it hard to distinguish between changes in relative price rises and general price rises, distorting the behaviour of individuals and firms and reducing efficiency; since it is unpredictable, it causes uncertainty and discourages investment; and it redistributes wealth unjustly, from creditors to borrowers, from those on fixed incomes to those on wages, and from everyone to the government.

Certainly inflation is damaging to the performance of the real economy, but so is high unemployment. It is an incredible waste of productive resources, it is expensive in terms of government benefits, and it is miserable for all the individuals who experience it. Along with substantial earnings differentials, and tax policies that favour the better off, it can cause drastic disparities in the distribution of income and potentially disastrous social disruption. Concerns about the consequences of high global unemployment in the 1990s saw a resurgence of interest in the pursuit of full employment, traditionally a key policy goal of the centre-left. This raises the central issue of how unemployment and inflation are connected, and what full employment might mean.

It used to be believed that there was a simple trade-off between the two variables: what is called the Phillips curve, after its progenitor, suggested that in order to reduce inflation, society had to tolerate higher unemployment, and vice versa. This inverse relationship did in fact exist in the US economy among others through the 1960s; it subsequently broke down irretrievably as later years witnessed both high inflation and high unemployment, what became known as stagflation. Such times led to the coining of a new economic indicator, the misery index, the combination of the rates of consumer price inflation and unemployment (an alternative misery index adds together inflation and interest rates).

Nowadays, the consensus of economic opinion seems to be that there is some level of output and employment beyond which inflation rises. For example, there is always a gap between the actual level of output and the potential level, a measure of the amount of slack in the economy called the output gap. If this gap is closed too far, supply cannot rise to meet any increased demand, thus forcing up prices; there exist what economic reports often call bottlenecks or supply constraints. This might be called a situation of excess demand: spending power, perhaps arising from tax cuts, increased consumer

borrowing or a bigger money supply, exceeds the availability of goods and services, bidding up their prices.

Similarly, it is argued that beyond a certain unemployment rate, what has been called the natural or non-accelerating inflation rate of unemployment, higher demand becomes inflationary. At such a point, the supply and demand for labour are in balance; beyond it, higher demand for labour supposedly drives up wage costs, which feed through to retail price inflation, which in turn encourages demands for higher wages, and so on in an inflationary spiral.

Estimates vary of what that rate of unemployment really is and arguments continue about whether it should be regarded as the "full employment" unemployment rate. It is assumed to depend on such factors as the level of minimum wages, benefits, employment taxes, unionisation, the age structure of the labour force and other demographic factors.

Financial markets' perception of the natural rate is reflected when news of an increase in the jobless figures is greeted enthusiastically by the markets, with stock and bond prices surging in response to lengthening dole queues. Contrariwise, the impact of falling unemployment can be bad for share prices, especially if the economy is "overheating". Falling unemployment is, after all, characteristically a lagging indicator of the business cycle. But longer-term, depending on the sectors and regions in which a portfolio is invested, more jobs and lower unemployment should mean better returns.

Competitiveness

National competitiveness is a difficult and controversial concept to define. One attempt is that it is the degree to which a country can produce goods and services that meet the tests of international markets while simultaneously maintaining and expanding the real incomes of its people over the long term. This depends on changes in costs and prices relative to comparable changes in countries with which trade is conducted, adjusting for movements of the exchange rate. It is generally accepted that greater competitiveness of a country's output can be achieved through some combination of reasonable productivity growth and an appropriately valued exchange rate.

Indicators of prices, earnings, unit labour costs and real exchange rates all give some guide to national competitiveness. Consumer and producer prices, for example, are measures of domestic rates of inflation: for each country, they can be used to assess changes in the general price level and inflationary prospects. But when they are compared internationally, they become indicative of countries' ability to sell their exports abroad; they show relative consumer and producer prices. For example, if UK consumer prices are rising faster than French ones, without compensating movements in the euro/sterling exchange rate, UK exports to France are more expensive than they were, and hence less competitive.

Earnings and unit labour costs focus on the relative costs side of comparisons of international competitiveness. Earnings measure total labour costs; unit labour costs measure

labour costs divided by output, and are therefore a function of productivity. Earnings and unit labour costs are an important indicator of inflationary pressures in an economy: if labour costs increase faster than productivity, then unit labour costs rise. Used to compare countries, they reveal cost competitiveness: higher unit labour costs, without compensating movements in the exchange rate, make it harder for companies to price their goods competitively on the international market and maintain their profit margins.

Real exchange rates are effective exchange rates between countries' currencies that have been adjusted to take account of differential rates of inflation. The inflation indicator might be wholesale prices or unit labour costs. Either way, the real exchange rate is an excellent indicator of national competitiveness, incorporating changes in the exchange rate, the relative rates of inflation and the relative growth of productivity. Its importance was illustrated by the particularly decisive shift in the value of this indicator for the United Kingdom in the last quarter of 1992 when the pound left the EMS.

The combination of devaluation and productivity growth gave the United Kingdom a strong low-cost advantage over other EU countries, though not against North America or Japan. For companies exporting to the EU, competing with EU imports, or considering either of these options, this was good news. They were able to price their goods very competitively, and still earn quite attractive profits. Thus competitiveness on a national scale and as a corporate concern become intertwined.

External trade

Each month, the ONS publishes figures showing how much the United Kingdom imported and exported in the previous month and consequently how much the country is in deficit or surplus with the rest of the world. These figures are mainly concerned with trade in visible items or merchandise goods. Trade in visible items is measured both in current values and in volume terms with adjustments made for erratic components, such as aircraft and precious stones, which are likely to distort the underlying trend. Visible trade is simpler to measure than invisible trade in services, and financial transactions such as transfer payments, interest payments, profits and dividends.

The volume of exports is determined by the demand from overseas, which in turn depends on the state of the importing economies, the price of the exports (a function of relative inflation levels and the exchange rate) and, of course, the quality of the products. Like export volume, import volume depends on relative prices arising from relative inflation and exchange rates, as well as the state of the UK economy. When the economy is growing, imports generally increase.

The balance of trade is the net balance in the value of exports and imports of goods in billions of pounds. When the United Kingdom imports more visible items than it exports, a perennial national problem, it is said to have a "trade gap". This may be of no particular concern provided it is offset by surpluses elsewhere on the balance of payments, such as in invisible items.

The current balance is the balance of trade in both goods and services plus net interest, profits, dividends, rents and transfer payments flowing into the United Kingdom from countries overseas in billions of pounds. A deficit on the current account balance must be made up in the capital account of the overall balance of payments through net investment into the country, loans from abroad or depletion of the official reserves. A persistent deficit puts pressure on the currency (as discussed in Chapter 12), encouraging devaluation to increase the price competitiveness of exports and decrease that of imports.

By bringing together the balances in visible and invisible trade, the ONS provides the current account. Adding in the capital account provides a complete statement of the United Kingdom's trade and financial transactions with the rest of the world. This full picture is known as the balance of payments and is published every quarter. A publication known as the *Pink Book* gives detailed balance of payments data, including the City of London's contributions to the United Kingdom's overseas earnings, total transactions with the rest of the European Union and details of the UK's overseas assets and liabilities.

The economy and the markets

The economy is one of the most important drivers of the stock market. The central economic force of interest rates, plus the assorted effects of exchange rates, inflation, public spending and taxation, will eventually have a say in overall valuations, whatever the temporary investment craze. At the same time, the stock market has a big influence on the economy, both as a forward indicator and determinant of consumer sentiment, and as a vital mechanism in the management of risk, encouraging the innovation and entrepreneurship that drive economic growth.

Shares and bonds provide the essential capital that enables companies to take the risks inherent in business. From their origins in mediaeval Italy, through increasing size and sophistication in 17th- and 18th-century Amsterdam, 19th-century London and 20th-century New York, the stock markets in which these assets traded have meant that the business risks of new projects can be shared – from building the rail, road and aviation infrastructure of the 19th- and 20th-century economies to building the electronic infrastructure of the 21st-century economy. Such risk-sharing has transformed the potential for economic growth and, in the latter part of the last century, as more and more people have got involved in the investment process, changed fundamentally our understanding of the relationship between risk and return.

For most of financial market history, debt finance was dominant. Until as late as the 1950s, shares were largely in the hands of wealthy individuals. Buying and owning shares was considered far too risky by the less well off and even by the institutions that now dominate the investment scene; instead, they held portfolios of high-grade, long-term bonds. But this arrangement has been swept aside in the past few decades, as investors of all kinds have sought better returns, companies have seen the hugely increased financing opportunities of the equity markets, and economic growth has made enormous improvements in living standards in the developed world.

Of course, there have been bad times in the past half-century and the stock market has been a good leading indicator of future economic gloom. For example, the closing of the period 1950–73 – often described as the "golden age" of economic growth in western Europe and the United States – was clearly foretold in the disastrous crash of 1973–74, when markets fell by more than half. The bear market of the early 1970s clearly reflected the ominous economic events of that unfortunate decade: sky-rocketing oil prices, the breakdown of the Bretton Woods agreements for managing international monetary affairs, and the emergence of persistent inflationary forces.

Many feared that these collapsing share valuations would lead to economic disaster, just as the Great Crash of 1929 was thought to have led to the Great Depression of the 1930s. Certainly, speculative manias or "bubbles" that culminate in self-feeding panics and eventual crashes can have widespread and undesirable consequences in the real economy. Clearly, too, a booming market boosts consumer sentiment, encouraging spending, reducing saving and increasing debt, and adding further fuel to a raging economy.

But economic policy itself alters the interaction between share values and the economy. In the 1990s, for example, cheap and easily available money sustained the market's upward trend. And in both the United States and the United Kingdom, the crashes of 1987 had marginal effects on economic performance since the monetary policy authorities in both countries were quick to cut interest rates to increase liquidity. Similarly, the US Federal Reserve's rate-cutting response to the global crisis of 1997–98 seemed to be successful in restoring the good times.

The effect of interest rates

But what about the influence of the economy on the stock market? In the short term, it can be hard to discern a clear relationship as markets often rise in a recession and fall or go sideways in a boom. Share valuations clearly react to economic news but the market's moves can often seem perverse, appearing to be happening more in response to how the figures compare with forecasts and expectations than with their actual values.

Over the longer term, the relationship becomes clearer. At base, investors are looking for the likely impact of any economic indicator on the future course of interest rates. If inflation is rising, it might mean the Bank of England will raise rates; if output is falling, it might mean a recession in which case rates will be cut; and so on.

And what makes interest rates so important? Interest rates are one of the two key variables – along with corporate profitability – that affect investment results. They act on share valuations like gravity: the higher the rate, the greater the downward pull. In simple terms, this is because the returns investors need from their assets are directly linked to the risk-free return they can earn on government bonds. So, other things being equal, if the government rate rises, the prices of all other investments must adjust downwards to bring their expected returns into line.

The great influence of interest rates on the market has been starkly demonstrated by the celebrated US investor Warren Buffett, best known for his incredible stockpicking

success and consistent outperformance of US market indices over at least three decades. Buffett notes that, in the 17-year period 1964–81, the US economy grew by a massive 370 per cent, yet the Dow Jones Industrial Average moved hardly a jot. In contrast, in the following 17-year period, 1982–99, the economy grew far less strongly – under 200 per cent – yet the Dow went up to over 10 times its starting value, an annual return on shares of 19 per cent.

Of course, all sorts of factors influence these contrasting market performances, but Buffett ascribes to interest rates the leading role. In the 1964–81 period, US interest rates went from 4 per cent to over 15 per cent, while in the 1982–99 period, they went from 15 per cent to 5 per cent. At the turning point of 1981, corporate profits were below par and interest rates were sky high, and so investors placed a low value on the market. In 2000, profits were above par and interest rates low, and so shares were highly valued.

What does this all mean going forward? Some investors still seem to be expecting a return to double-digit average annual real returns on their shares. But according to Buffett's history lesson, this requires profits to take an even larger slice of national income, which seems unlikely; and/or interest rates to fall even further, which is possible but improbable on current trends. Buffett's conclusion is that returns for the next 17 years are more likely to go back to their average level over the eight decades since the 1920s: 4 per cent a year.

Might the investment opportunities of the information economy save the day for the skilful technology stockpicker? Buffett is sceptical, making the comparison between the effect of the internet and that of cars and planes: all three industries have had a transformational effect on the economy, but in the end very few of the companies that were in there at the start made money. With the stock market playing an invaluable role, innovators and entrepreneurs have driven economic growth; but the forces of competition mean that over the long term, there are no great gains for investors. The economy ultimately makes itself felt.

“I want the whole of Europe to have one currency; it will make trading much easier.”

Napoleon Bonaparte

“The path to European monetary union will not be a stroll; it will be hard and thorny.”

Karl Blessing,

Bundesbank President, 1963

16

The European economy

Market integration and monetary union

- **The European economy** – exchange rates and the European Monetary System (EMS); currency market volatility in 1992 and 1993
- **Launching the euro** – economic and monetary union (EMU); the early weakness and later strength of the single currency; EMU and European capital markets
- **Enlargement** – expanding European Union membership

National economies such as that of the United Kingdom can no longer be examined in isolation. Increasingly, international flows of goods, services and capital are making economies more and more interdependent and, with an almost global consensus on the positive effects of free trade, this movement can only go further. Countries' economies interact in a number of ways, generally facilitating each other's progress, and certainly having important effects on and being in turn affected by the national and international financial markets. Nowhere is this more evident than in the European Union (EU). This chapter explores the basics of the European economy.

The European economy

The European Union is on its way to representing one-third of world output, compared with one-quarter for the United States and one-sixth for Japan. As a market comprising 25 countries, the Union accommodates over a quarter of all world commerce within its frontiers. Furthermore, it is the world's most substantial source of foreign direct investment, its most important provider and consumer of services and the largest global supplier of aid.

The European Union has been through a number of transformations in its history. One of the most economically significant was the "1992" project, the creation of a single market. On 1 January 1993 that single market came into effect: in principle and to a large extent in practice, the remaining obstacles to the free flow of goods, services, capital and labour between the then 12 member states of the EU were removed, and the Union moved significantly closer to its goal of becoming a genuine "common market".

In the face of serious upheavals in European currency markets, notably in the latter halves of 1992 and 1993, the EU's long-term goal became the establishment of a full economic union, involving a close harmonisation of member countries' general economic policies, the centralisation of fiscal and monetary control procedures and a single currency. The single market had already produced a number of benefits for European consumers and businesses, and it was anticipated that there were many more to be reaped from the process of "ever closer union".

One of the most important steps towards that full economic and monetary union (EMU) was taken in 1979, when the then European Community set about creating a "zone of currency stability" known as the European Monetary System (EMS). The Treaty on European Union, agreed at Maastricht in 1991 and signed the following year, established a timetable for further advancement of the EMU goal, which was ultimately achieved on 1 January 1999 when 11 EU members launched the single currency.

Exchange rates and the European Monetary System

The idea behind the European Monetary System was to achieve currency stability through coordinated exchange rate management. This would facilitate intra-Union trade and set the stage for a single currency. The exchange rate mechanism (ERM), a system of

fixed but flexible exchange rates, was the central plank of the EMS. Countries participating in the ERM would keep the value of their currencies within margins of 2.25 per cent either side of agreed central rates against the other currencies in the mechanism. Sterling, the Spanish peseta and the Portuguese escudo, all of which joined the ERM several years after its inception, were allowed to move within margins of 6 per cent.

The ERM worked by requiring members to intervene in the foreign exchange markets in unlimited amounts to prevent currencies breaching their ceilings or floors against the other currencies. For example, if the peseta fell to its floor against the D-Mark, the Bank of Spain was required to buy pesetas and sell D-Marks. Other members could help by intervening on behalf of the weak currency. This, in theory, would prop up the peseta before it fell through its floor.

Second, the country whose currency was under fire could raise its short-term interest rates to make its currency more attractive to investors. If intervention on the foreign exchanges and adjustment of short-term rates failed to stop a currency from sliding too low or rising too high, an absolute last resort was a realignment of the central rates to relieve the tensions in the system.

In the early years of the ERM, there were several realignments but from 1987 until 1993, when the ERM was effectively suspended, there was none. Many economists argue that it was the failure of the mechanism to realign in response to the strength of the D-Mark that led to the tensions of the autumn of 1992 and the summer of 1993.

Currency market volatility in 1992 and 1993

After five years of relative calm, the currency markets of Europe erupted in a sequence of dramatic market events. The explanation for these events lay in German reunification at the end of the 1980s. To pay for unification, the German government had to borrow substantial amounts of money, which forced up the cost of borrowing in Germany. High German interest rates coincided with low US interest rates and the result was strong international demand for D-Marks, forcing German rates even higher.

This happened just as the rest of Europe, heading into recession, needed lower interest rates to stimulate economic activity. However, since all the other currencies were committed to maintaining their central rates against the D-Mark, they were forced to keep their interest rates at levels that were damaging their economies. So long as Germany's rates were high, countries like the United Kingdom and France were unable to lower their lending rates without causing a run on the pound and the franc.

In the case of the United Kingdom, the tensions became too much for the system in September 1992. The country was suffering its longest recession since the 1950s yet had interest rates of 10 per cent. With inflation low, the real cost of borrowing was exceptionally high. The markets took the view that such high lending rates at a time of recession were unsustainable. Pressure on the pound mounted over August, but the UK government, mindful of the hardship being caused by the high cost of borrowing, was unwilling to raise rates further in order to protect the pound. Its only weapons were intervention

on the foreign exchanges and repeated assurances by ministers that there would be no devaluation.

Events came to a head on 16 September 1992, Black Wednesday (or White Wednesday to "Eurosceptics", delighting at its negative implications for future UK participation in Europe), when sterling and the Italian lira were forced out of the mechanism. Speculative investors, losing confidence in the currencies and seeing the opportunity for significant profits, shifted vast funds out of sterling and the lira into the D-Mark. Many, for example, sold the pound short, expecting to be able to buy it back at a much reduced rate.

The effect of all this selling was to drive the pound down. On the day, the UK government tried to save it by buying large quantities of pounds, and by announcing an increase in interest rates to 15 per cent. But this was not enough to stem the flow against sterling: effectively, the Bank was transferring its reserves to the short-selling speculators. After a steady drain on reserves, the government pulled out. Both sterling and the lira sank well below their ERM floors as soon as the authorities gave up the struggle to keep them within their old bands.

For the next 11 months, relative calm returned to what was left of the mechanism. However, in August 1993, tensions arose once more, this time centred on the French franc. The problems were familiar: France was in a recession with high unemployment yet was unable to cut its very high interest rates. One solution would have been for Germany to ease its lending rates, but the Bundesbank, the German central bank, would not contemplate such a move for fear of encouraging inflation at home. According to the German constitution, the prime duty of the Bundesbank is to monitor domestic monetary policy. Thus it was required by law to put the need for low German inflation before the travails of the ERM.

As pressure mounted, EU finance ministers met to find a solution. The answer was to widen the currency bands for all except the D-Mark and the Dutch guilder to 15 per cent. The bands were so wide that although the ERM survived in name, the currencies were effectively floating. With the new bands a currency could theoretically devalue by 30 per cent (from its ceiling to its floor) against another member, without falling out of the system. That was the system of the ERM until the launch of the euro.

Launching the euro

On 1 January 1999, the currencies of 11 members of the EU (all bar Denmark, Greece, Sweden and the United Kingdom) were irrevocably locked together and the euro was launched. Prices in eurozone countries were still quoted in the national currency as well as euros for a short time but the exchange rate was fixed. Eventually, the national currencies disappeared as euro notes and coins were introduced on 1 January 2002.

Monetary policy in the eurozone is managed by the European Central Bank (ECB) in Frankfurt, which operates with a high degree of independence from political interference. The ECB has been given the responsibility for maintaining price stability through

setting short-term interest rates in the eurozone. It is not required to consider employment when setting policy.

Fiscal policy remains the preserve of national governments since there is no necessary connection between a single currency and a unified fiscal policy. Nevertheless, there is considerable policy coordination between finance ministries through a regular meeting of eurozone finance ministers.

The early weakness and later strength of the single currency

The *Financial Times* gives prominent coverage to the progress of the euro. The big story soon after the euro's launch was its weakness against other leading currencies. Its more than 20 per cent fall against the dollar from the beginning of 1999 was a setback for advocates of the benefits of a single currency, particularly those in Germany, a country that always took pride in the strength of the D-Mark. But such declines are not irreversible and in 2002, the euro came bouncing back strongly.

International financial markets have a number of signs that the euro will soon stand alongside the dollar as a dominant world currency. For example, equity and corporate bond issuance denominated in euros is growing exponentially; there is a progressive shift of central banks' reserves from dollars into euros; and the euro is increasingly important as a peg for other currencies. So why did it start out so poorly?

The main reason for the euro's weakness was the relative strength of the US economy compared with the eurozone, notably the former's continuing combination of dynamic growth with low inflation. This was compounded by substantial net capital outflows from the euro countries, partly due to low inward investment and partly to foreign investors unwinding excessively bullish early positions in eurozone assets. But these things changed as the US economy slowed.

Part of the problem may have lain in the ECB's oft-criticised communication strategy. The monetary framework as presently configured is poorly equipped to deal with conflicting signals. For example, the widely advertised, self-imposed ceiling of 2 per cent for inflation makes the ECB more vulnerable to temporary overshooting than the more pragmatic Federal Reserve, which manages US monetary policy.

Europe's monetary architecture is unfinished, and this may further raise uncertainty. The Maastricht Treaty is unclear on who is in charge of the exchange rate: the ECB or national governments. Foreign exchange market intervention is controversial, which encourages prudence but only up to a point. With unclear attribution of responsibilities, neither party may be willing to take a risk. What is more, governments are likely to take different views among themselves as they face diverging economic conditions.

In the end, however, the euro's early weakness may simply have been yet another instance of vagaries in the foreign exchange markets. Freely floating exchange rates are known to fluctuate wildly with little link to the fundamentals. In the face of such fluctuations, a policy of "benign neglect" may be the best option.

EMU and European capital markets

One of the hopes for the single currency is that it will eventually lead to pan-European capital markets. EMU offers the possibility of creating a domestic financial market to rival that of the United States. The question is to what extent this is likely to translate into economic reality. While a single currency is a necessary condition for the emergence of pan-European capital markets, it is by no means a sufficient one.

The assessment of many economists is that the impact of the euro on European capital markets is very favourable. On almost all counts, EMU has either drastically changed the financial landscape of Europe or has the potential to do so in the future. This success is all the more surprising given the euro's early weakness against the dollar.

Europe's capital markets have undergone a remarkable transformation since the euro was launched. A euro-denominated corporate bond market has emerged with issuing activity in excess of that in the dollar market. Primary issues in European equity have reached record highs. Europe-wide indices have been established and portfolios have begun to be allocated along pan-European sectoral lines rather than by country. Eurex, the German–Swiss exchange founded in 1998, has overtaken the Chicago Board of Trade to become the world's largest derivatives exchange. Banks all over Europe have merged or formed alliances on an unprecedented scale, dramatically changing national banking environments and beginning to create international firms and networks. And cross-border mergers in all industries have increased strongly, giving rise to record volumes in Europe's M&A industry.

Some of these developments could have been expected as consequences of the "direct effects" of the euro. These effects comprise standardisation and transparency in pricing; shrinking of the foreign exchange market; elimination of currency risk; elimination of currency-related investment regulations; and homogenisation of the public bond market and bank refinancing procedures. But the euro also has indirect effects on the cost of cross-country transactions within the eurozone; the liquidity of European financial markets; and the diversification opportunities available to European investors.

In the first instance, EMU had little direct effect on transaction costs, but it clearly made the existing obstacles and inefficiencies more visible. Within Europe, cross-border payments and securities settlements are more expensive, lengthier, riskier and less standardised than equivalent domestic transactions. What is more, the eurozone has 18 large-value systems (compared with two in the United States), 23 securities settlement systems (compared with three in the United States) and 13 retail payments systems (again, compared with three in the United States). Differences in taxation, legislation and standards create further obstacles.

EMU has prompted a renewed urgency among policy makers to addressing these problems. The establishment of TARGET and EURO1 – the settlement systems for large transactions for the European System of Central Banks and the European Banking Association, respectively – and the implementation of the European Commission's directive on cross-border credit transfers are the most visible steps taken in this direction.

Despite the problem of transaction costs, by eliminating currency risk, EMU has put traders in foreign euro-denominated assets on an equal risk base with domestic traders. Together with the increase in transparency resulting from the single currency, this has greatly reduced the barriers to trading such assets. In this sense, EMU has increased the demand side of the market for every asset traded in the eurozone. And to the extent that expanded markets give rise to increased trading, this should reduce liquidity risk.

A second potential benefit of increased market size is the opportunity for greater diversification. EMU fosters market integration not just by eliminating foreign exchange risk, but by improving information flows and by reorientating traditional international asset allocation methods from a country basis to a pan-European industry basis.

Enlargement

The issue of the single currency has dominated the European Union in recent years. But an equally important issue is that of expanding EU membership. Can this possibly be good news for the European economy?

Many people are understandably dubious about the economic benefits of an EU enlargement involving Turkey, although the political benefits are probably substantial. But the 2004 "eastern enlargement" to encompass several of the formerly communist countries now undergoing "economic transition" offers extraordinary growth opportunities for western European companies and investors.

Economic integration almost invariably improves growth: by opening the west's markets to eastern agricultural and lower-tech manufacturing goods, incomes will be substantially raised in the east, increasing demand for the higher-tech products and services of western companies. At the same time, the latter can invest more easily in the east, often making more productive use of their capital.

Here lies one of the key benefits of enlargement, not only for these companies but also for investors: EU membership locks countries into well-defined property rights, sound policies and open capital markets. These mean investors can transfer money in and out easily, making investment substantially less risky but still with very promising returns.

MEMBERS AND POTENTIAL MEMBERS OF THE EUROPEAN UNION

Original members

Belgium

France

Germany

Italy

Luxembourg

Netherlands

First enlargement (1973)	***Second enlargement (1981)***
Denmark	Greece
Ireland	
United Kingdom	
Third enlargement (1986)	***Fourth enlargement (1995)***
Portugal	Austria
Spain	Finland
	Sweden
Fifth enlargement (2004)	
Cyprus	Lithuania
Czech Republic	Malta
Estonia	Poland
Hungary	Slovakia
Latvia	Slovenia
Hoping to join in 2007 or 2008	
Bulgaria	Romania
Hoping to start accession talks soon	
Croatia	Turkey
May join some day	
Albania	Moldova
Belarus	Montenegro
Bosnia	Serbia
Georgia	Ukraine
Macedonia	

“No nation was ever ruined by trade.”

Benjamin Franklin

“When your neighbour loses his job, it’s a slowdown; when you lose your job, it’s a recession; when an economist loses his job, it’s a depression.”

Anon

17

The world economy

Trade, growth and international institutions

- **The world economy** – the main regional groupings: North America, the European Union, and east Asia; the rest of the world
- **Global economic institutions** – the key international forums: the IMF; World Bank; G7/8; OECD; EBRD
- **Economic growth and development** – export orientation, sequencing, aid and debt; migration, the environment and economic transition
- **International trade** – comparative advantage and the gains from trade; trade liberalisation
- **Exchange rates and international finance** – the role of central banks

Business and investment decisions are increasingly made in an international context. Global flows of goods, services and capital are making national economies more and more interdependent, and this trend appears unlikely to be reversed. First, there seems to be a consensus on the positive effects of liberal trade policies whereby barriers to trade between nations are reduced and removed. Second, national product markets are increasingly dominated by powerful multinational corporations, companies that cut across national boundaries and are eager to produce and sell their output wherever they can do so profitably. And third, as the second part of this book discussed, there are the international financial markets (for debt and equity capital, for cash and currencies, and for commodities and derivative products), in which borrowers seek the cheapest funds available, and investors and speculators chase the highest possible returns.

Economic globalisation is having increasingly important effects on national economies, on local financial markets and on individual companies. In making business and investment decisions, it is no longer advisable simply to take account of the domestic economy, either with regard to particular markets or at the aggregate level. Even if a business tends to rely on domestic suppliers or sell primarily to the home market, or if investors restrict their portfolios to the local exchanges, it is still useful to consider international trade and financial flows, and economic developments elsewhere in the world. These can affect any business, adding an international dimension to economic considerations.

Alongside the process of globalisation are the processes of market integration and regionalisation pursued by national governments. The countries of western Europe are well advanced on the path to integrating their economies, as well as coordinating their economic policies, and many other regions of the world are following their example. These processes, too, interact with the business of exporting and importing, with running a business more generally, and with national and international asset markets. It is valuable to understand them and their coverage in the *Financial Times* in order to make more informed business and investment decisions.

The world economy

The world economy breaks down into a number of regional or other economic groupings based on standards of living, levels of output and trade, and historical or geographical connection. The three most powerful blocs are North America (the United States and its partners in the North American Free Trade Agreement or NAFTA, Canada and Mexico), the 25 member states of the European Union (EU) and east Asia centred on Japan. While the United States remains the world's dominant economy, representing over a fifth of global output and a third of the industrialised countries' output, the other two blocs are certainly threatening its position. This post-communist balance is sometimes described as the tripolar world.

The 30 leading industrialised countries – in Europe, the Americas, Asia and Australasia – form the Organisation for Economic Co-operation and Development (OECD), the "rich

countries' club". The leading countries of the OECD (the United States, Japan, Germany, France, Italy, the United Kingdom and Canada) make up the Group of Seven (G7), which as a whole accounts for two-thirds of world output. Then there are the "newly industrialised countries" (NICs) of south-east Asia, the mainly Middle Eastern nations of the Organization of Petroleum Exporting Countries (OPEC), the ex-communist countries of eastern Europe and the former Soviet Union (although four are now in the OECD), and the developing countries of Latin America, Africa and the rest of the world.

1973 is often seen as the turning point of the post-war period, marking the end of the high-growth, low-inflation, full-employment and fixed-exchange-rate years, and the beginning of the more uncertain times since. The problems of the latter period were launched by the floating of the dollar and the consequent chaos in the international financial markets; and by the oil crises, when the price of oil quadrupled within the space of three months.

The collapse of communism at the end of the 1980s was expected to usher in a new era of prosperity. But the countries of eastern Europe found that the struggle to make the transition from a command economy to a market economy was far more difficult than expected. The position of the former Soviet Union was worse: before its recent recovery, Russia's economic reform efforts ran into severe problems, while the disintegration of the Comecon trading bloc greatly increased the adjustment problems of all the former communist states. Africa continues to lag economically behind the rest of the globe.

Although economic statistics from outside the United Kingdom are reported by the *Financial Times* in a less systematic way than the UK figures, a broad range of figures is published throughout the year. For the world, the most regular and reliable statistics are collated by the IMF in its monthly publication *International Financial Statistics* and its annual *World Economic Outlook*. Another useful source of statistical information is the OECD, in particular its annual country reports and the twice-yearly *Economic Outlook*.

Global economic institutions

A number of international fora exist to discuss global economic issues, and the newspaper reports on most of their activities. The main ones are:

- **The International Monetary Fund:** set up by the Bretton Woods agreement of 1944 and coming into operation in March 1947, this institution was established to encourage international cooperation on monetary issues. The aim of the fund is to tide members over temporary balance of payments difficulties. It does this by making hard-currency loans to members while trying to enforce structural adjustment of their economies. The fund has more than 180 members who pay subscriptions according to the size of their economies. They pay 75 per cent of the quota in their own currency and 25 per cent in international reserve assets. Members are then given borrowing rights with the fund, which they can use to help finance a balance of

payments deficit. Countries in difficulty can also negotiate standby credit on which they can draw as necessary. Members are required to repay their drawings over a three- to five-year period.

- **The World Bank:** established at the same time as the IMF, and originally intended to finance Europe's post-war reconstruction, this institution has subsequently concentrated on loans to poor countries to become one of the largest single sources of development aid. The bank has traditionally supported a wide range of long-term investments, including infrastructure projects such as roads, telecommunications and electricity supply. Its funds come mainly from the industrialised nations, but it also raises money on international capital markets. The bank operates according to business principles, lending at commercial rates of interest only to those governments it feels are capable of servicing and repaying their debts.
- **Group of Seven/Eight (G7/8):** a grouping that dates back to 1975 when the French president, Valéry Giscard d'Estaing, invited the leaders of the United States, West Germany, Japan and the United Kingdom to discuss economic problems following the first oil price shock. Since then, the summits have grown to include political and foreign issues, which form the subject of a political declaration issued on the penultimate day of talks. The sixth and seventh members are Italy and Canada. Since the disintegration of the Soviet Union, Russia has also participated in many of the discussions to make it the G8.
- **Organisation for Economic Co-operation and Development:** sometimes referred to as the rich countries' club, this organisation's membership consists of the 30 industrialised nations of the world (Slovakia being the most recent new member, joining in 2000) with a secretariat based in Paris. It too goes back to the end of the war when it was set up to organise Europe's recovery. It is now more of a thinktank to discuss economic issues of mutual interest, but it is a particularly valuable source of publications. Its annual surveys of the member countries and twice-yearly *Economic Outlook* provide a useful overview of prospects for the industrialised world.
- **European Bank for Reconstruction and Development (EBRD):** a development bank set up in 1990 to help the countries of eastern Europe develop market economies. An EU initiative, it resembles existing multinational regional development banks, such as the African Development Bank and the Inter-American Development Bank, and was the first institution specifically designed to coordinate western economic help for eastern Europe in the wake of the collapse of their communist regimes. EU states and institutions have a 53.7 per cent stake; most other European countries are also shareholders and the United States has the biggest single stake of 10 per cent. Japan's 8.5 per cent shareholding matches those of the United Kingdom, Germany, France and Italy.

Economic growth and development

All countries pursue economic growth, an increase in their output of goods and services, and an increase in their incomes to purchase those goods and services as well as those produced abroad. For countries outside the industrialised world, this is generally termed development. Numerous policies have been tried since the war to achieve this goal, but nowadays it is typically pursued through a combination of encouraging production of goods for export, attracting foreign direct investment, borrowing from banks and international institutions, aid from overseas, macroeconomic stabilisation policy and market liberalisation. Much debate centres on the appropriate "sequencing" of economic policies for development, meaning which ones should come first.

The economies of south-east Asia have been the most successful at development, becoming the "newly industrialised countries" or NICs. Much of that success may have resulted from high export orientation as measured by exports as a proportion of GDP, what is known as export-led growth. Many of the countries of eastern Europe, Latin America, Africa, and elsewhere in Asia (notably India and China), are eager to follow the progress of the NICs, and, as a consequence, it is important for the markets of the developed world to be open to their products.

Part of such development can be funded by foreign aid. Some is in the form of bilateral grants and loans, as opposed to contributions to multilateral institutions. The remainder is tied to the purchase of goods and services from donor countries. This kind of aid is less beneficial to poor countries since it forces recipients to pay higher prices for imports, encourages them to invest in vast capital projects, and does little for the relief of poverty, one of the most pressing problems of the developing world.

Another notable problem for developing countries has been the debt crisis, when numerous governments defaulted on their loans from western banks. Until early 1995, this had eased considerably since the late 1980s when Latin American countries particularly had very high debt service ratios, the proportion of export revenues taken up by debt repayment. It was re-ignited at that point when Mexico was plunged into a deep financial crisis with implications for the rest of Latin America and other emerging markets.

The World Bank discerns five major development challenges for the future. These are the promotion of economic reforms likely to help the poor, perhaps in contrast to the inequitable "structural adjustment" (somewhat extreme free market) programmes of the past; increased investment in people, particularly through education, health care and family planning; protection of the environment; stimulation of private sector development; and public sector reform that provides the conditions in which private enterprise might flourish.

Migration, the environment and economic transition

Alongside the longstanding issues of economic development in the "third world" are the more recent development problems of the formerly planned economies of eastern

Europe and the ex-Soviet Union. The transition of these countries to democratic market economies has thrown up many new questions about the appropriate sequencing of economic policies and the extent to which market reforms (including price liberalisation, trade liberalisation, privatisation, establishment of capital markets and the institution of a legal and regulatory framework) should be implemented suddenly as "shock therapy". There is also concern in the traditional developing world about the diversion of industrialised nations' attention, aid, trade preferences and capital.

A major issue in both developing and ex-communist countries is the environment, and whether the goals of expanded trade and development, and protection and preservation of the environment, are compatible. For example, should developing countries adopt less strict regulations on pollution by "dirty" industries than the developed world in order to attract investment in those industries? At the heart of this debate is the concept of "sustainable development", whether there are policies that promote both economic growth and an improved environment. This is a highly contentious issue: many developing countries ask why environmental concerns should hinder their progress when the industrialised countries had ignored such concerns in their own development.

Another issue high on the international agenda is also very contentious, that of migration. Flows of goods, services and capital are well covered by the institutions of global capitalism, but there is little policy on the treatment of international flows of people. Indeed, there is much hypocrisy among believers in the free market system, demanding "free markets, free trade and free enterprise", but at the same time, strict immigration controls. If trade and finance can flow freely, why not labour, some ask. Such considerations have stressed the importance of free trade and foreign investment to discourage mass migration: by investing directly in the poorer parts of the world and providing open markets to their products, the industrialised countries will not experience so much migratory pressure from those places.

International trade

International trade is a central driving force of global economic growth and development, and the general trend since the war has been for it to increase. The interaction of national economies through international trade increases world output by allowing countries to specialise in the production of those goods and services that they can produce most efficiently. Countries could cut themselves off from the rest of the world, and seek to provide for all their needs domestically. However, if, for example, their industries are particularly good at making high-quality, low-cost computers, and not so efficient at growing rice, it makes sense to focus their energies on the manufacture of computers, and, in effect, trade them for rice with other countries. Even if those other countries are not more efficient at rice-growing, but agriculture is still their most effective industry, specialisation in production followed by free trade should still be beneficial to all parties.

It is generally accepted that specialisation (to some degree) and free trade allow all countries to develop more rapidly, and expand global output and incomes. However, there are many obstacles to their working out in practice. These arise from the interests of particular groups within countries (including managers, investors and employees), and play out in governments' trade and commercial policies, in recurrent trade disputes between countries and trading blocs, and in the great debate between free trade and protectionism.

A number of arguments for protection are advanced. For example, companies in declining or internationally uncompetitive industries sometimes demand protection in order to avoid going out of business. Their managers might argue for the "national interest", the importance of producing their goods domestically, the unemployment their failure would cause (here they would be backed by their workforce) and the "cheating" strategies their foreign competitors adopt.

Similarly, firms in "infant industries" (often new, high-technology, sectors) might claim they need protection because they are as yet too young, small and weak to compete effectively at the international level. Governments themselves might pursue strategic protection of industries they believe it might be dangerous for foreigners to control.

The trade policies of the EU, for example, are the outcome of three conflicting compulsions: the liberal commitment to the idea of free trade, as reflected in multiple global trading initiatives; the protectionist desire to shield some domestic producers from foreign suppliers; and what is known as a "pyramid of preferences", which ranks various trading partners, often on the basis of historical connection. The protectionist element of these policies has predominantly been directed at manufactured imports from other industrialised countries, but, increasingly, they also affect goods produced by competitive suppliers in less developed countries.

Trade liberalisation

The growth of international trade is frequently hampered by barriers erected to keep out imports and protect domestic industries. These might take the form of tariffs, quotas, duties, limits, "voluntary export restraints" and a host of other schemes. Since the end of the war, big advances have been made in reducing these barriers to the free flow of goods and services, but there is still a long way to go. The world recession of the early 1990s threatened a renewed bout of protectionism as countries looked inwards to deal with their own problems.

The main forum for addressing trade issues was the General Agreement on Tariffs and Trade (GATT), a multinational institution set up in 1947 to promote the expansion of international trade through a coordinated programme of trade liberalisation. The GATT's primary two-pronged approach was to eliminate quotas and reduce tariffs. It supervised several conferences (or "rounds") on tariff reductions and the removal of other barriers to trade, and, in late 1993, brought to completion the Uruguay Round of trade discussions. Part of the final agreement was that it should become the World Trade Organization.

The Uruguay Round (1986–93) was an attempt by the international community to renegotiate the world trading system. With the participation of over 100 countries, it aimed both to repair the old GATT and to extend it to many new areas: it was the first negotiating round in which developing countries pledged themselves to substantive obligations; it was the first application of liberal trading principles to the services sector, foreign direct investment and intellectual property rights; and it re-integrated into the GATT system two important sectors, textiles and agriculture.

The success of the Uruguay Round centres on, among other things, an enormous cut in tariffs. This, coupled with more transparent and orderly trading rules, gave a powerful boost to the world economy, stimulating competition and offering developing countries new opportunities for integration into international markets. The accords of the Final Act, agreed on 15 December 1993, came into force in 1995 following ratification by all member countries.

The Uruguay Round introduced a series of institutional innovations to back up the new rules: a semi-judicial dispute settlement system, a trade policy review mechanism and the new World Trade Organization. The principal change is that the old GATT has lapsed: the new system as it results from the Final Act of the Uruguay Round is a very different and legally distinct institution.

At ministerial meetings in Seattle in late 1999, the WTO tried to launch a round of talks on trade liberalisation – the so-called "Millennium Round". But there was strong opposition to these latest globalisation efforts from an alliance of environmentalists, trade unionists and assorted human and consumer rights activists. The eventual failure of the meeting reflected several negative forces: the parties' widely disparate positions; the lukewarm attitude of many governments towards further trade liberalisation; and the difficulties experienced by the WTO as an institution.

It was generally felt that if the WTO was to recover from Seattle, it would need to bring the developing countries much more securely into the trading system. After all, developing countries comprise a large majority of WTO membership and account for an increasing share of world trade and the bulk of its growth. It was in this spirit, soon after 9/11 in late 2001, that the WTO adopted the Doha Development Agenda, which puts development at the heart of multilateral trade negotiations for the first time. But restoring the system's legitimacy in the eyes of a majority of its members is not mere charity: rather, it is a matter of self-interest for the developed countries. They still have much to gain from both the further liberalisation of world trade and the disciplines that an effective WTO imposes on domestic policy discretion.

Alongside the process of trade liberalisation across the globe is that of market integration. This process typically begins with a free trade agreement, an arrangement between countries (usually in the same geographical region of the world) to eliminate all trade barriers between themselves on goods and services, but in which each continues to operate its own particular barriers against trade with the rest of the world. It may develop into a customs union or common market where arrangements for trade with the rest of the world are harmonised, subsequently into a single market like the EU, and perhaps on to full economic and monetary union.

A number of regional free trade agreements exist, most notably the NAFTA and the Association of South East Asian Nations (ASEAN), which includes Brunei, Indonesia, Malaysia, the Philippines, Singapore, Thailand and Vietnam. Such initial efforts at market integration are spreading rapidly, including, for example, the Mercosur in Latin America, incorporating Brazil, Argentina, Uruguay and Paraguay.

Exchange rates and international finance

The cross-border exchange of goods and services is made possible by the fact that it is possible to convert one national currency into another. Thus, a UK company wishing to buy a US product (priced naturally in the local currency, dollars) can make the transaction by buying dollars with its pounds. The price it pays for those dollars in sterling is the exchange rate, and the markets on which it buys them are the international currency markets.

When these markets are allowed to work freely, with the price of currencies in terms of other currencies fluctuating according to demand and supply, it is known as a floating exchange rate system. That, for example, is the kind of system currently in place between the dollar and the yen. The opposite is to have rates set by governments with occasional devaluations and revaluations: a fixed rate system, such as the one that operated in the post-war world up to 1973. In practice, systems are typically somewhere in between, with rates allowed to fluctuate to some extent, but managed by national monetary authorities.

As well as providing the means for companies and countries to conduct trade across borders, exchange rates also allow various forms of international investment and speculation. Broadly characterised, there are three types: first, there is speculation by owners of large quantities of "hot money", constantly moving their funds around the world in pursuit of the best return, and going in and out of money market accounts in response to minuscule shifts in relative interest rates. "Hot money" flows in and out of countries in response to the pursuit of short-term gain and without any considerations of longer-term issues of economic development of product markets or national economies. It moves simply on the basis of movements or expected movements of exchange rates and relative interest rates.

Second, there is portfolio investment in international asset markets by investors. This flow of cross-border financial investment is growing substantially as investors place larger portions of their portfolios in international equities and bonds. As with all portfolio investment, this might be short- or long-term investment, depending on the goals of the investors, immediate profit or longer-term financial goals. It is reflected particularly in the increasing enthusiasm for the emerging markets (see Chapter 9).

Third, there is international capital investment by companies, seeking low-cost production facilities and/or access to new markets, and by governments and financial institutions. In the case of the private sector, this is called foreign direct investment (FDI); from governments, it might be in the form of loans, or conditional or unconditional aid. Such investment might also come from global organisations such as the World

Bank. Given the difficulties of planning such investments, they typically have long-term ambitions in mind.

The role of central banks

The forces of globalisation and liberalisation have led to significant changes in the way central banks go about their principal tasks. Markets have become much more powerful: they discipline unsustainable policies; and they give participants ways to get round administrative restrictions on their freedom of action. This means that central banks have to work with rather than against market forces. Maintaining low inflation requires the credibility to harness market expectations in its support. And effective prudential supervision involves "incentive-compatible" regulation.

In monetary policy, attempts to exploit a supposed trade-off between inflation and unemployment have given way to a focus on achieving price stability as the best environment in which to pursue sustainable growth. The intermediate goals of monetary policy have also changed. Monetary targets and exchange rate pegs have proved difficult to use in practice, and increasingly countries have adopted inflation targets, backed by transparency in the policy-making process and independence of action for central banks.

The objective of financial stability has acquired much more prominence in recent years, following various high-profile mishaps at individual institutions and severe problems in some financial systems. It has become harder to segment different types of financial activity or to apply restrictions to the activities of individual institutions. Systemic stability requires ensuring that financial institutions properly understand and manage the risks they acquire, and hold an appropriate level of capital against them.

The international monetary system has been through a transformation in the past 30 years. The Bretton Woods system developed at the end of the Second World War was "government-led": official bodies decided on exchange rates and the provision of liquidity, and oversaw the international adjustment process. Now, the system is "market-led": major exchange rates are floating; liquidity is determined by the market; and the adjustment mechanism operates through market forces. The job of central banks is to see that market forces work efficiently and that any instability is counteracted. This seems to mean stable and sustainable macroeconomic policies, and, where possible, action to ensure that inevitable changes in the direction and intensity of capital flows do not destabilise financial systems.

PART 4

Beyond the financial pages

“I am a better investor because I am a businessman,

and a better businessman because I am an investor.”

Warren Buffett

“Because there is so much noise in the world, people adopt rules of thumb.”

Fischer Black

18

Company and investor lives

The key performance ratios

by Ken Langdon

- **Key financial ratios** – what to look for in annual reports: gearing; income gearing; return on capital employed; pre-tax profit margin
- **Key shareholder ratios** – what to look for in the financial pages: yield; price/earnings ratio; dividend cover
- **The life of a growth stock** – four stages in the history of a telecommunications company: the annual report; changes in the key financial and shareholder ratios

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Any person in business has two, three or at most four financial ratios by which he or she measures performance. These ratios are very specific to each individual. The head of a consultancy will be concerned with the ratio of days billed to days available. A sales manager will be worried about orders taken to date as a proportion of the budget or target for that period of time. And a self-employed one-man company in the building trade will probably focus simply on what money is owed to him, what money he owes to his suppliers, what his bank balance is, and the amount and timing of his next tax bill. These financial ratios are by no means the only indicators of the health of a business, but they are chosen by their owners because of their crucial importance to achieving success.

Investors are never in the position of a manager in a business of knowing intimately how it is doing, but there are some ratios that allow them to make well-informed assessments. Two of the most crucial ratios are reported daily in the *Financial Times* (**dividend yield** and the **price/earnings ratio**), and a third each week: **dividend cover**, which is published in the London Share Service pages on Monday.

The next source of information available to investors is the company's annual report. This offers some consistency of key indicators, since they are regulated by law and accountancy standards. Using these, investors can make relevant comparisons of one company with another, particularly if the companies are in the same industry sector. Company reports are notorious for what they hide as well as what they reveal. It is possible, at least in the short term, for creative accountants and their boardroom employers to produce figures that more accurately reflect their aspirations for the company rather than its actual performance. However, this does tend to disappear with time: as the business continues to perform in a certain way, so the accountants will eventually force the board to be more frank with the shareholders.

Despite this caveat, the annual report does give some very useful information. For the small private investor, generally the most usable of these ratios are **return on capital employed**, **gearing**, **income gearing** (or interest cover) and **pre-tax profit margin**. Armed with these four ratios, and the three above, investors are in a better position to make decisions. The problem is that for many private investors, this is too time-consuming and they either take decisions based on less information than this, or trust their money to the professionals who charge royally for the privilege.

This chapter endeavours to describe a quick method of getting to these figures, and then, by the example of a company going through a 30-year life cycle, to show how the mix of investor or shareholder ratios and the company's key financial or management ratios paint a picture of the health and prospects of potential investments. If investors add a judicious reading of the chairman's statement to discover the board's intentions for the future, they are as well prepared as is possible without becoming a full-time company watcher.

Key financial ratios

The four company ratios provide an effective check on progress and are reasonably easy to calculate. They should always be done for the two years in the report so that changes

over time are reflected. The chairman's statements can then be checked to see if they comment on changes that an investor may regard as significant. Frequently, the report will include "facts for shareholders" or "five-year record", which include some calculated ratios. The advantage of these is that they remove the need to do any extrapolation or calculation. Unfortunately, there are two disadvantages that make them much less useful. The first is that the published ratios are calculated in a way that suits each company: they will tend to use figures that are not misleading or inaccurate, but which give a gloss on performance that the truly objective investor wishes to avoid.

The second problem is connected: since companies use ratios that suit themselves, they do not use the same ones. So, for the sake of consistency, it is better for an investor to become very familiar with four ratios and to work them out for him- or herself. An investor can also build a personal database of examples, offering various benchmarks for examining and comparing any company. This is particularly true if studying only one or a limited number of business sectors.

The rules of thumb quoted in the next few sections are useful to an investor as he or she learns to appreciate the significance of the ratios. They are only guides, however, and as the following company history suggests, their significance varies depending on the business the company is in and the stage of its lifecycle it has reached.

Gearing

Gearing (or balance sheet gearing, as it is often called to distinguish it from other forms of gearing) compares the amount of money in shareholders' funds with the amount of external liabilities that the company has. High gearing is more risky than low gearing, but could mean that the company is pushing hard for expansion and needs high levels of debt to finance that growth. It is possible to calculate gearing in a number of ways, but one of the easiest is also one of the harshest measures of a company's exposure to the perils of high levels of debt and creditor dependence.

The ratio is a comparison between the total debt liabilities of a company with its shareholders' funds. The higher the ratio, the more likely it is that debt will become a burden. The more debt, the more interest, the lower the profits and therefore the worse the potential for paying dividends.

The calculation is as follows: find the current liabilities in the annual report, often called "liabilities: amounts falling due within one year". Add "creditors: amounts falling due after more than one year", ensuring that everything is included, to find total debt liabilities. Find the figure for total shareholders' funds, but do not include minority interests. Divide total debt liabilities by total shareholders' funds and multiply by 100 to arrive at a percentage figure.

Gearing ratio rule of thumb

Low gearing	⟶	below 100 per cent
Medium gearing	⟶	100–200 per cent
High gearing	⟶	above 200 per cent

Income gearing

The ratio of total debt liabilities to shareholders' funds has the limitation that it includes all current liabilities as well as all debt. It is often valuable therefore to have another ratio that indicates the company's ability to service its debt. Income gearing (and its reciprocal, interest cover – see Chapter 2) provides this information. It is the ratio of interest payable to the profits out of which interest is paid. It takes a little more calculation than the other ratios, but has the merit of being impossible to fudge. Many investors regard it as the most important gearing ratio.

To calculate income gearing: find the interest payable for the year, often a detail in the notes. The figure on the balance sheet is "net interest", which is interest payable minus interest receivable, not the figure needed here. Find the earnings, or profit, before interest and tax. Often this must be calculated by adding interest payable to the pre-tax profit shown on the profit and loss account. Divide interest payable by profit before interest and tax and multiply by 100 to express it as a percentage.

Income gearing ratio rule of thumb

Low income gearing	⟶	below 25 per cent
Medium income gearing	⟶	26–75 per cent
High income gearing	⟶	above 75 per cent

Return on capital employed (ROCE)

This measure is a good indicator of managerial performance, relating pre-tax profit to the long-term capital invested in the business. It is a good guide as to whether sufficient return is being generated to maintain and grow dividends and avoid problems of liquidity. Unfortunately, it is prone to being misrepresented: there are several areas where boards can make this simple measure lead an investor away from the company's problems rather than towards them. Nevertheless, over time it does reveal what is necessary to know about the health of a company measured by profits. Many investors regard it as the key profitability ratio.

To calculate ROCE: capital employed is equivalent to total assets minus current liabilities and this figure is often given on the balance sheet. If not, calculate it as long-term debt, plus provisions for liabilities and charges, plus any other long-term liabilities, plus shareholders' funds, plus minority interests. Divide pre-tax profit by capital employed and multiply by 100 to express it as a percentage.

Return on capital employed rule of thumb

Low profitability	⟶	below 10 per cent
Medium profitability	⟶	10–20 per cent
High profitability	⟶	above 20 per cent

Pre-tax profit margin

This indicator reveals the profits earned per pound of sales and therefore measures the efficiency of the operation. This ratio is an indicator of the company's ability to withstand adverse conditions such as falling prices, rising costs or declining sales.

To calculate pre-tax profit margin: take the pre-tax profit figure on the profit and loss account. Divide it by the total sales revenues, often known in UK reports as "sales turnover", and multiply by 100 for a percentage.

Pre-tax profit margin rule of thumb

Low margin	⟶	below 2 per cent
Medium margin	⟶	2–8 per cent
High margin	⟶	above 8 per cent

Key shareholder ratios

Chapter 5 explains the following indicators of company and share performance and where they can be found in the *Financial Times* listings of share price information. The following is a brief refresher before examining how these ratios, along with the financial ratios explored earlier, may change over the life of a company.

Yield

This is the percentage return on investment that a shareholder receives in dividend compared with the current share price. It is listed daily in the newspaper, along with the average for all the industry sectors. Generally, investors looking for income will pick shares with an above-average yield. However, long-term investors will also look for yield, particularly when they are investing in a tax-efficient way, as for example with an ISA. Here the tax advantage magnifies the growth available in a high-yielding share.

Price/earnings ratio

Also known as the multiple, the p/e ratio reflects the market's valuation of a company expressed as a multiple of past earnings (profits). It is listed daily in the newspaper, along with the average for all the industry sectors. Investors looking for capital growth will look for shares that have a high p/e. If the market has made a correct prediction, an investor in such a share should expect to see growth of sales and profits in the company.

Dividend cover

This ratio of the profits to gross dividends is another useful indicator for investors. Many private investors recognise the long-term benefits of a growing income stream from dividends. If they are investing for the long term, therefore, they may very well look for shares that are out of favour with the market and which, as a result, have a high yield. It is quite likely that the capital growth of such a share may be very limited in the short or even medium term. But this slow growth at the early stage is less important if the dividend payments are worth having.

The problem arises where a high-yielding share has insufficient profits to continue to increase or even maintain its dividend. The chances of its being able to keep the payments up are indicated by the number of times the dividend is covered by the profits.

The life of a growth stock

There is no such thing as a typical company. Their different products, markets and management styles make each enterprise unique. It is possible, however, to use the following example as a benchmark of the characteristics and ratios of a company over a long period of time. For each of the four stages, there is an indication of the kind of information the annual report may provide, and the likely financial and shareholder ratios.

Stage 1: inception to 10 years old

Turn back the clock to the time when telecommunications was in its first meteoric growth phase. The imaginary sample company, Phoneco, was created by a flotation from its parent where it had been a non-core business. The newly floated company in the early stages has the ability to generate very rapid growth of sales. The market is eager for the new service and sales are there for the taking for any company that can lay down a telecommunications network.

Phoneco is very aggressive at this stage. It needs volume to cover its voracious appetite for cash as it invests millions of pounds in infrastructure. This makes its competitiveness very sharp. To a considerable extent, it will sacrifice profit for market share. It hires a sales force of "hunters", salespeople who enjoy the challenge of getting new business quickly. These salespeople are good at closing business and handling objections. If they do not close business fast, they go elsewhere. It is to be expected that there is high morale in the company as the business and consumer markets flock to the upstart.

The annual report

The chairman's statement will reflect this growth. Extracts may include such comments as the following: "May saw another milestone when the new connections rate for residential

customers signing up with Phoneco reached 30,000 per month"; "Our sales growth last year exceeded 50 per cent, and although this is likely to prove exceptional, Phoneco is confident of its ability to take further advantage of the expanding market over the next few years." The report's tone will reflect the excitement and enthusiasm of the fledgling, which is discovering success for the first time.

The financial ratios

The board is running Phoneco by its cash flows rather than by its profit and loss account. It needs huge amounts of cash for capital investment and will probably have very high levels of borrowing. This high gearing will show itself in both of the gearing ratios, with a high percentage of debt and very little profit left over once interest is deducted. Profitability will be relatively low measured by both return on capital employed and the profit margin.

Phoneco's financial ratios at Stage 1

Gearing	⟶	500 per cent
Income gearing	⟶	95 per cent
ROCE	⟶	1 per cent
Pre-tax profit margin	⟶	1 per cent

The shareholder ratios

Investors will find that the market only sees Phoneco as long-term potential, resting in the high-risk part of their portfolios. It is undesirable for the company to pay large amounts in dividend, since it needs all its cash to fund its expansion. Hence, the yield will be low. The p/e will be very high as the market calculates future profit streams for the company as it gets into a position to exploit its assets. The dividend cover may very well be high, not because the profits are huge but because the dividend is low.

Phoneco's shareholder ratios at Stage 1

Yield	⟶	0.3
Price/earnings	⟶	35
Dividend cover	⟶	13

Stage 2: 10 to 20 years old

Phoneco has come of age. It has survived the heady days of 30 per cent year-on-year growth and shown itself to be competitive. The company is now well into the FTSE 250

list of companies. It has a viable market share in the areas where it already operates and is looking for new opportunities to make further investment either in new markets, such as overseas, or in new product areas, such as telephone equipment.

This diversified growth will still cost a great deal of money, but the business now generates a healthy cash flow and is profitable. There is still a fair amount of risk in the company. It is vulnerable to making mistakes as it moves into new activities. No matter how good the prospects, it is always more risky to take old products into new markets or new products into old markets than to keep doing more of the same.

The annual report

The chairman's statement may now see more talk of consolidation of the company's current affairs, although the emphasis of the report will still be on growth, and possibly on new initiatives. Extracts from the statement for a Stage 2 company may include such remarks as: "Our earnings per share before exceptional items grew by 22 per cent"; "Our strengthening financial position allows us to explore new areas seeking basic telephone services, while at the same time consolidating our strategy to focus on those parts of the world where we are already strong and where our returns will be the greatest."

The financial ratios

The debt ratios are still high. Almost certainly by this time, Phoneco will have been back to its investors for more cash through a rights issue. This, of course, radically reduces the debt to equity ratio, but it will rise again to reflect continued investment. Profitability has improved to what could be described as fairly safe levels. This means that the current business will produce reliable profits, and it is only in the new areas of activity that there is still high risk.

Phoneco's financial ratios at Stage 2

Gearing	⟶	200 per cent
Income gearing	⟶	75 per cent
ROCE	⟶	10 per cent
Pre-tax profit margin	⟶	4 per cent

The shareholder ratios

Phoneco wants to pay out some dividend of real worth. It probably had to make promises in this area when it made its cash call and it sees dividend as a sign of impending "respectability". Nevertheless, the yield is still well below the sector average, as the price of the share is buoyed by the market's expectation of further growth. The p/e is also still very high. It is probably less than other new entrants in Stage 1 of their lifecycles, but it

will be well above the industry average. The dividend is stretching cover much more than in the first phase. Investors are starting to ask when the return on their money will start to come through, and there is no room for the very high dividend cover of the earlier stage.

Phoneco's shareholder ratios at Stage 2

Yield	⟶	1.6
Price/earnings	⟶	25
Dividend cover	⟶	3.5

Stage 3: 20 to 30 years old

The company has achieved respectability. It is now at the bottom end of the FTSE 100 companies. It is a complex company and the analysts are looking for good statements of strategy, which prove that the current management can run a cruiser, having been very successful in managing fast patrol boats and destroyers. The company's share price will vary with the changes in the industry. A bad regulatory change, for example, could endanger profit growth significantly. Long-term planning is no longer a luxury, but a vital responsibility of the board and its advisers.

The company will have some "big names" on its board with the possibility of an ex-cabinet minister among its numbers. Risk has changed in its nature. The company could now afford to make some mistakes without threatening its actual life. The market sees the risk as comparable with other stocks in the sector. Investors will see reports recommending sell-offs of one share in the sector and swaps into other companies in the same sector.

The annual report

It is unlikely that the annual report will claim that everything is rosy. Shareholders expect more circumspect statements with admissions of error and promises of remedy. A careful look at the ratios on which the chairman reports can be revealing. For example, if he produces a graph showing that the past 25 years of share price appreciation has consistently outperformed the market index, he is probably trying to reassure the market that there is still plenty of growth potential there. He does not want the growth in share price to stall, although it will certainly have slowed.

Like the professionals, the private investor should look for a confident statement of comprehensive and long-term goals and strategies. Extracts from the chairman's statement for a Stage 3 company may say: "We see alliances with other companies as an important contributor to our vision to be the supplier of choice for people seeking high levels of features combined with international coverage"; "New technologies offer enormous opportunities to broaden the services available to our current customers. The

convergence of voice, music, graphics, video and data will radically alter the way we conduct our lives"; "The reorganisation, which we completed during the year, has ensured that we can carry through our promises of presenting a global image and relationship with our key accounts worldwide."

The financial ratios

The ratios have now reached the mature end of industry averages. Gearing is at the low-risk end and less than a third of profits are required to pay the interest bill. The measure of return on capital employed is as meaningful and reliable as any other large company's, and reflects the kind of return expected from the whole sector as opposed to the rapid growth part of the sector. The relatively high pre-tax profit margin shows the built-in profitability of the telecommunications sector, which can exploit its expensive investments in infrastructure for many, many years.

Phoneco's financial ratios at Stage 3

Gearing	⟶	100 per cent
Income gearing	⟶	30 per cent
ROCE	⟶	20 per cent
Pre-tax profit margin	⟶	8 per cent

The shareholder ratios

The dividend is an important part of large investors' portfolio plans. The yield will therefore tend to be around the average for the sector and even for the whole market. The p/e is similarly near the average for the sector. The dividend cover has gone sharply down as investors start to make the returns they were expecting at this stage in Phoneco's lifecycle.

Phoneco's shareholder ratios at Stage 3

Yield	⟶	4.0
Price/earnings	⟶	18
Dividend cover	⟶	1.9

Stage 4: More than 30 years old

The board is now commanding a battleship or a stately galleon. Shareholders have stopped looking for excitement in the share and want long-term promises on dividends and the delivery of these promises. The company is in the top 20 of the FTSE 100 and has

a high-profile chairman and non-executive directors. The chairman will be frequently heard on the television and radio talking about the company's performance, the economic situation, the regulatory environment and other current affairs.

Representatives of the company now have a lot of power over standards bodies and supplier policies. Someone from Phoneco will be one of the panel in any debate with a telecommunications context, from virtual reality shopping to home working. The salesforce now comprises more "farmers" than "hunters". The company has well-founded key account management techniques in place to develop and protect market share.

The chairman will probably be found complaining about the view that the stock market takes of Phoneco's shares. The company likes to think it is a growth and innovation enterprise, while the market sees it as primarily a utility, with limited opportunities for the sort of growth that will make a significant difference to its profit stream.

The annual report

The chairman's statement will include an emphasis on benefits to customers. The company takes very seriously its dominant place in a number of markets, and is anxious to show that it is not exploiting this. Phoneco will boast of new offerings to its customers, lower prices and generally better service. Extracts from the chairman's statement for a Stage 4 company may include: "Steady growth of sales at 4 per cent and earnings at 5.5 per cent demonstrate our progress towards meeting the expectations of both our shareholders and our customers"; "Against this economic and competitive background, Phoneco's strategy remains clear. We will develop vigorously in our traditional markets and at the same time establish ourselves in new markets for advanced services both in our traditional and new parts of the world."

The financial ratios

The ratios are all safer than the industry average and are at the top end of the benchmark. There is no question in the short term that the company can maintain its market and profit growth, limited though that is. Investors will be wary for any signs of decline. Regulations and new competitors represent the biggest risk. Phoneco has already shown good control of costs, but this needs to be a continuing phenomenon and reflected in the profit margin.

Phoneco's financial ratios at Stage 4

Gearing	⟶	60 per cent
Income gearing	⟶	20 per cent
ROCE	⟶	25 per cent
Pre-tax profit margin	⟶	10 per cent

The shareholder ratios

The share is now in almost all pension and private portfolios. The expectation is for dividend progress rather than capital growth, and the yield and dividend cover show it. The yield is well above the average and cover is at a low level. Dividend cover probably wants to stay around here except if there is an exceptional item affecting profits. The p/e is the sign of the stately galleon.

Phoneco's shareholder ratios at Stage 4

Yield	⟶	5.9
Price/earnings	⟶	13.8
Dividend cover	⟶	1.5

“Anyone who is not intimately involved with the internet and the web does so at extreme peril.”

Bill Gates

“Cyberspace is where your money is.”

John Perry Barlow,
co-founder of the Electronic Frontier Foundation

19

Finance on the internet

Using the electronic financial pages

- **Reading the electronic pages** – Reuters, Bloomberg and Bridge; ft.com

The *Financial Times* provides a globally used reference point for financial data, but the newspaper medium obviously has the limitation of being published only once a day. For readers needing to supplement the newspaper's overview of the news and markets with more sophisticated real-time data, there are other media, notably the internet and private online services. The growing versatility of computers, their increasing power, larger memories, faster modems and interconnectedness all mean that the options for accessing information on financial markets (as well as trading online) have never been greater than they are today. A very brief introduction to a variety of electronic information sources is the subject of this chapter. Much more advice can be found in the newspaper, particularly the Saturday edition, as well as in a wide variety of investment publications and books like Alpesh Patel's *Net-Trading: Get Online with the New Trading Strategies* (Financial Times/Prentice Hall).

Reading the electronic pages

For the professional investment community, the global information product suppliers – Reuters, Bloomberg and Bridge – remain essential tools. These companies deliver news services, markets reports and price quotations to customer screens in most financial institutions. They provide constant real-time datafeeds on currencies, stocks, bonds, futures, options and other instruments across a range of countries and markets. The services also provide software to analyse the data, graphical displays and asset price analysis, allowing the user to retrieve historic news and price quotations.

These companies also offer transaction products that enable traders to deal from their keyboards. Reuters, for example, has an equity trading mechanism called Instinet, which allows traders to negotiate deals directly but anonymously via a computerised "bulletin board", where traders place their bids and offers of shares, and deals are matched automatically.

Electronic sources of financial information like these have been around for some time, but never has the market been so competitive, the quality of what is provided so high or the range of products so varied. For market participants, the difficult decision is over how to make the trade-off between data quality and cost. Most of the databases are essential tools of investing for professionals dealing in equities and other instruments. The needs of the individual investor, unless a very active trader with an extremely large personal portfolio, probably run to something less complete and less expensive.

What is more, computers are now bridging the divide between the large investing institutions, traditionally close to the markets, and individual investors, previously far from the action and at a considerable disadvantage. The primary force behind this development is, of course, the internet. Numerous websites now offer relatively easy access to real-time prices and the ability to chart them with historical prices. They also provide the opportunity to research background information on companies, market and economies; to give trading orders directly, with the advantages of speed and savings on telephone charges; and to integrate all of these into a personal finance and/or portfolio management software package.

Reading the online *Financial Times*

The *Financial Times* was one of the first newspapers to launch an online edition, starting in May 1995. More than 10 years on, ft.com continues to draw on the newspaper's established strengths, in reporting, analysis and access to data. The website is primarily aimed at a wide range of business and professional users, but it also provides financial planning tools for the general public. Active individual investors can access up-to-the-minute market news and comment with a speed and immediacy that allows them to be intimately connected with the ebb and flow of prices and sentiment. The site also offers a set of powerful tools for understanding market trends. For example, users can construct their own charts, plotting an individual company's share price against an index and choosing whatever time period they wish. This sort of tool was previously only available at a high monthly fee.

As an example of how to make sense of the electronic pages, a couple of screens for equities from ft.com provide a good introduction. The best place to start is to call up a particular company by typing its name or symbol into the search and quotes box on the top right-hand side of the website's home page. This then brings up a list of markets where the stock (or derivatives based on it) is quoted, from which it is generally best to pick LSE (London Stock Exchange). This then leads to a host of market information (see Figure 19.1) plus links to detailed background information on the company's financial position and recent company news as well as access to annual reports and analysts' estimates:

- **Quotes:** the first box on the left-hand side provides a latest quote on the share price, the change and percentage change in price on the previous day's closing price, the price high and low for the day, the price at which the share opened that day and the net volume of shares traded. Prices are usually updated every 15 minutes so they do not necessarily reflect prices at which it is possible to trade.
- **Fundamentals:** the second box down provides price highs and lows over the past 12 months (including the date they were reached), and the latest dividend payment and when it was paid. It also shows the company's market capitalisation, price/earnings ratio and earnings per share.
- **Closing prices:** the chart shows the ups and downs of the share price over recent weeks. An "interactive charting" tool allows the viewer to alter the period shown and compare the movements against an index or other shares.
- **Share prices for the last five days:** the final box carries the closing price for the last five trading days and the changes on the previous days, in terms of both cash and as a percentage.

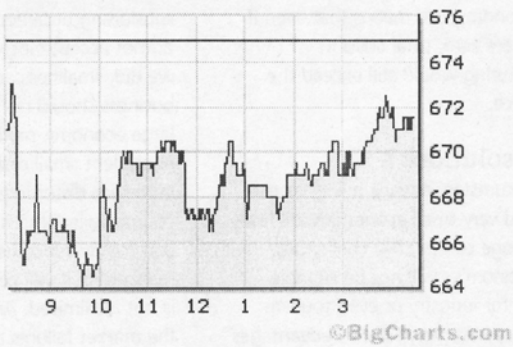
Pearson Real-time prices over the phone

Data | News archive | Profiles | Financials

Quotes | Analytical charting | Consensus forecast | Analyst reports | Annual reports

PSON LSE 16:35 BST Create News alert - UK:PSON Create | Add to my portfolio Add

Quotes	25Aug2005
Last	670.500 p
Change	▼ -3.00
% Change (1)	▼ -0.45%
High	673.00
Open	671.00
Low	664.00
Net Volume	1,966,065



Fundamentals

52 Wk High (2)	697.00
Date	19/8/2005
52 Wk Low (3)	587.00
Date	25/10/2004
Dividend	10.00
Div Date	24/8/2005
Market Cap (4)	5,381 M GBP
P/E Ratio (5)	60.41
EPS (6)	11.10

Time Frame: 3 months Analytical charting

Last 5 days quote

Date	Close	Net Change	% Change **
24Aug2005	673.5	▼ -19.50	-2.81%
23Aug2005	693	▲ 5.50	0.80%
22Aug2005	687.5	▼ -7.00	-1.01%
19Aug2005	694.5	▲ 3.00	0.43%
18Aug2005	691.5	▲ 6.50	0.95%

(1) = %Change based on previous day close (2) (3) = 52 Week High and Low values are based on intraday values reached by a given security. (4) = Market Capitalisation is calculated by multiplying a given security's shares outstanding figure by the previous day's closing price. The shares outstanding figures include traded shares only. (5) = P/E Ratio (Price to Earnings Ratio) is calculated by taking the last price for a given security and dividing that number with the basic or adjusted EPS (Earnings per Share) figure reported directly by the company. (6) = EPS (Earnings per Share) value is taken from the basic or adjusted EPS figure reported directly by the company.

Fig. 19.1 Electronic share price information

Broader equity market data can be obtained, for example, the latest movements of the FTSE 100 index and other London market indices (see Figure 19.2).

This is only a tiny flavour of the range of financial information available to investors on the internet. Much more is available via company websites and online financial publications, as well as a growing number of ways for investors to trade shares online.

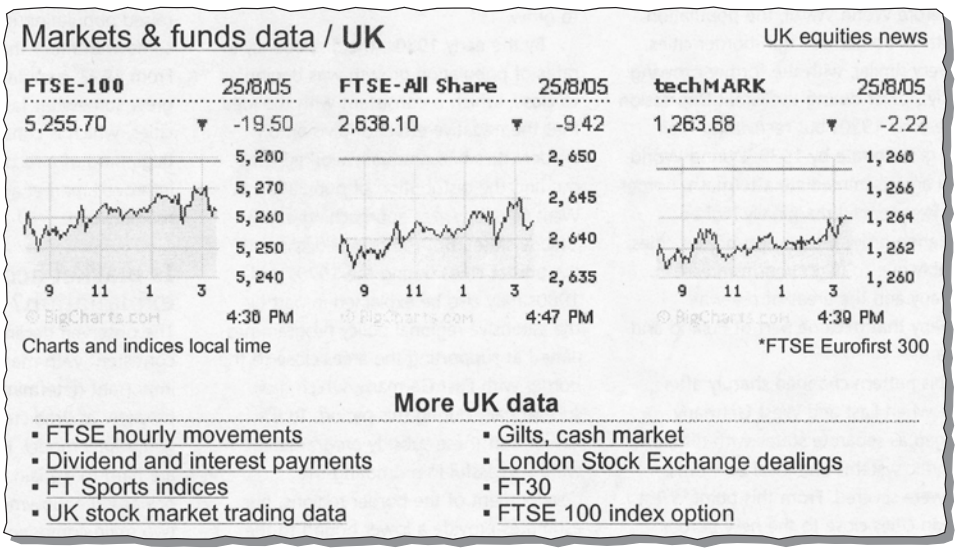


Fig. 19.2 Electronic index information

“You may not get rich by using all the available information,

but you surely will get poor if you don’t.”

Jack Treynor

“I know you believe you understand what you think I said,

but I am not sure you realise that what you heard is not what I meant.”

Alan Greenspan

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Sources of information

A brief guide

- **Information sources** – newspapers; magazines; reference books; radio and television; institutional advice; annual reports, newsletters, tip sheets and City publications
- **Using the information** – reading between the lines of company and market commentary: Standard Chartered and Ryanair as examples in Lex
- **Reading the *Financial Times*** – a brief reiteration of where to find the most important information

The *Financial Times* is essential reading for anyone involved or interested in money and the financial markets. But there are plenty of other sources of information: not just the electronic datafeeds and internet services discussed in the previous chapter, but a variety of newspapers, magazines, newsletters and other publications as well as broadcast media. An information consumer requires three skills to avoid being overwhelmed by the deluge of information available: an ability to select the best sources; a filter to focus only on relevant information; and an understanding of how to read between the lines of financial reporting and comment, and carefully to distinguish it from sales promotion by interested parties. This chapter aims to be a rough guide to what is available and how to go about reading it. It closes by returning to the *Financial Times* itself with a brief reiteration of how to find your way through the newspaper and get to the information you need.

Information sources

The US equivalent of the *Financial Times* is *The Wall Street Journal*, which is available in European and Asian editions, though their international coverage is to some degree at the expense of the extremely detailed coverage of the US markets carried by its regular edition. Other good newspaper sources of business and financial information for the United States include *The New York Times* and *Investor's Business Daily*. In the United Kingdom, there is good coverage of the local, European and international markets in all the quality daily and Sunday newspapers, but nowhere near the depth of financial market data or company news carried by the *Financial Times*.

The key magazines for the investor are, in the United Kingdom, *Investors Chronicle*, and in the United States, *Barron's*. *The Economist* also provides excellent broad coverage of international business and finance. Other magazines that cover financial issues include *Shares*; the UK personal finance publications, such as *Moneywise, Inside Money* and *Money Observer*; US business magazines, such as *Forbes, Fortune* and *Business Week*; magazines for financial intermediaries, such as *Money Management*; the international banking magazine, *The Banker*; *International Financing Review* for corporate financiers; and *Euromoney* for those involved in the Euromarkets.

There are numerous reference publications on the markets that can supplement the real-time information available electronically and the news coverage and data of papers and magazines. Good UK examples include the *Stock Exchange Yearbook*, which provides detailed history and financial information on all securities listed on the London exchange; the *Hambro Company Guide*, which also provides data on all fully listed companies; the *Estimate Directory*, which contains individual UK brokers' forecasts and composite forecasts for hundreds of companies; and the *Handbook of Market Leaders*, which includes data on contract details, share prices, up to five years of financial information, activity analysis and graphic share-price analysis.

In the United Kingdom, radio and television offer a limited number of programmes covering financial and business issues apart from the daily news. The notable ones are

the weekly Radio 4 programme *Money Box* with its wide-ranging discussions of personal finance, and BBC2's business forum, *The Money Programme*. However, both television data services, CEEFAX and Teletext, provide share and option prices updated four times daily plus financial market headlines; and FT Cityline and Teleshare offer telephone services with real-time share prices, updated constantly. The United States is far better served by its broadcast media; indeed, at least one mainstream channel, CNBC, is devoted to business and finance.

For further details on the UK market for financial information, Proshare, an organisation committed to encouraging wider share ownership, publishes a useful guide to information sources for the private investor.

Institutional advice

On top of the generally objective information and analysis provided by the press, there is a host of rather less disinterested material from the major players in the markets. Company reports are of course the single most important source of information on individual companies, containing all financial information and official statements from the company for the last financial year. All shareholders receive a copy of the annual report as of right and non-shareholders can apply to the company secretary for a free copy. The *Financial Times* also offers a free company report service for a wide selection of companies: the relevant companies are indicated in the London share service. How to start analysing the information provided by annual reports is discussed in Chapter 18 of this book.

A secondary source of information for investors comes from newsletters or, as they are sometimes more disparagingly known, tip sheets. There are newsletters for every occasion and every investment style, particularly in the United States where estimates of the number published range from 800 to several thousand. In the United Kingdom, there are significantly fewer, perhaps only 20 of any substance, which is partly a result of the extensive coverage of the markets in the national press. It is also perhaps partly due to fear of their writers using the format to push stocks for their own advantage, and certainly investors should be aware of possible lack of objectivity. They should also examine a newsletter's track record before following its advice automatically.

The attraction of newsletters is that they offer ideas, data, analysis and a point of view that are not going to duplicate regular sources. Most are small operations centred on one individual, their editor–adviser, and their whole purpose is for investors to find information that others may not have, and to learn about opportunities both to sell and buy stocks before the mainstream investment community. Essentially, there are three main types of newsletter: company-specific tip sheets, providing recommendations on specific stocks; market-related newsletters, which cover the markets themselves and often involve sophisticated technical analysis; and political and/or socio-economic newsletters, which, rather than focusing on specific investment advice, offer different views and analysis of what is happening in the world and how events may shape markets. The *Hulbert Financial Digest*, published in the United States, offers an objective source for the performance analysis of investment advisory newsletters.

Other subjective sources of information are the publications of large brokers and investment houses. Many financial institutions offer information sheets and/or newsletters of some kind to their clients, and these are frequently driven by the need for sales. The UK regulatory bodies, for example, demand that when brokers and tip sheet writers publish investment recommendations, they must be researched and able to be substantiated, but it is best to be sceptical.

With brokers' advice, it is vital to remember that their primary interest is in transactions rather than their clients' portfolio performance. This creates a bias towards activity or "churning" of the account. There is an additional bias towards encouraging purchases rather than sales. One reason for this is that the former have more commission-generating power since everyone is a potential buyer. The dominance of buy over sell recommendations may also be more likely because analysts can be reluctant to express pessimistic opinions: for effective research on their chosen industry sector, they need open lines of communication with companies' management. The outcome of this bias to the positive is that they frequently overestimate stocks' potential success.

Lastly, it is worth remembering that there is an awkward paradox at the heart of any published investment advice. If the advice is obvious, the markets will have already taken it into account. If it is not obvious, but still correct, the markets will react to it instantaneously so that most advisers will have already acted. The best kind of investment advice, therefore, is often general, not specific, and it is about spotting trends rather than discrete events.

Using the information

Newspapers like the *Financial Times* pride themselves on dealing in fact rather than speculation, and on the accuracy, authority and objectivity of their information and analysis. But even their reporting and comment must be interpreted: while the highly regarded Lex column, for example, does not make investment recommendations as such, it is still necessary to try to understand the underlying view and its implications. The following examples from the column, coverage of the low-cost airline Ryanair and the Standard Chartered bank published in 2005, may provide some indication of how to "read between the lines" of any writing about companies and markets. They also show the kind of performance ratios that are seen as important by leading commentators on the market. The reader may still want to look at other hard facts of company and share price performance.

Ryanair

Ryanair is the Tesco of the skies. Like the Teflon-plated UK retailer, the Irish low-cost carrier keeps on growing both top and bottom lines while most competitors buckle under the strain. This is reflected in the shares' 17 per cent outperformance against the European airline sector this year.

Second quarter figures were no exception; pre-tax profits were up a third despite a doubling of fuel costs. Managing high fuel prices is now the biggest challenge for Ryanair and the rest of the airline industry, en route for its fifth successive year of losses. British Airways and other flag carriers have reacted by upping fuel surcharges, widening the gap between their fares and the low-cost carriers' driving more passengers into the arms of Ryanair and its closest rival, EasyJet.

But EasyJet has already said the higher oil price will more than offset gains from higher revenues. Ryanair's earnings are less sensitive than EasyJet's to oil price movements and are hedged again from this autumn. Ryanair's costs are in euros, not sterling, and an increasing proportion of revenues comes from high-margin ancillary services like travel insurance.

In this kind of environment, however, even Ryanair's fabled cost control will struggle to deliver any margin improvement. Unit costs, up 6 per cent over the quarter, would have fallen 9 per cent but for fuel. Last June, Ryanair warned of a winter "bloodbath" for the airline sector. Its prediction may just have been a year early.

(*Financial Times*, 3 August 2005)

Standard chartered

Standard Chartered is in the right places at the right time. Whether it is in Asian economies pulled along by China or in Middle Eastern nations enjoying an oil price windfall, the group is prospering along with its customers.

Pre-tax profits from south-east Asia, now the second largest profit centre after Hong Kong, jumped 88 per cent in the first half. The group as a whole managed a very healthy one third increase in earnings per share.

Not everything is running smoothly. There is margin pressure in Singapore and India and hyper-inflation in Zimbabwe. But Standard Chartered is too solid these days for a few little local difficulties to unbalance it. Bad debts, while up a fifth, rose pretty much in line with assets. Cost control remains tight. The decision to axe staff in Hong Kong, for which the bank was pilloried locally, is paying off: pre-tax profits in the territory rose 27 per cent, while HSBC saw a 7 per cent decline.

It would be wrong to extrapolate these strong results for the second half. New acquisition Korea First Bank, in particular, got off to a good start but still requires investment. Business momentum remains considerable, however. And Standard Chartered is spending so heavily on new products and marketing across its franchise that it could easily tweak costs were revenue growth to slow. With another year of double digit growth in prospect, the shares deserve their 35 per cent premium on 2006 earnings to the European banking sector.

(*Financial Times*, 9 August 2005)

Reading between the lines

A significant proportion of press coverage is about the profits companies earn and their prospective future profits. In these cases, the companies have just published results and both have increased pre-tax profits – despite very rapidly rising fuel costs in the case of Ryanair.

The comments on the share prices of the two companies refer to their performance relative to the relevant industrial sector, the European banking sector for Standard Chartered and the European airline sector for Ryanair. Making comparisons of share valuations in this way rather than with the more traditional benchmark of a national market index is a reflection of the growing European interest in making comparisons of companies within pan-European industry sectors rather than relatively narrow national stock markets.

Each story focuses on the markets in which the companies operate, and on the industry-specific indicators that should be added to the all-purpose financial ratios (of profitability, yield, etc.) when assessing their performances. For Standard Chartered, revenues generated in Asia and the Middle East and from new products are driving growth; Ryanair's top-line growth seems to be benefiting from higher passenger numbers because of price advantages over most of its competitors.

The current and future prospects for the two markets and the degree of competition these companies face are also very important considerations. Ryanair faces a market that is severely affected by high fuel prices, but by controlling costs and undercutting all bar one of its rivals, it is taking a substantial share of that market. Standard Chartered, in contrast, is operating in at least one market – the Middle East – that is enjoying rising oil prices and has been particularly successful in developing overseas markets. Meanwhile, its main competitor in Hong Kong saw pre-tax profits decline.

Each piece looks at relative share valuations and the essential question of whether the prices are too high or too low. Standard Chartered's price/earnings ratio is compared with the sector's and although it is at a premium, the suggestion is that the company's rapid growth rate implies that it deserves that premium. The implication is that the shares are priced about right.

For Ryanair, in contrast, the implication seems to be that despite the share's outperformance of the sector, it could potentially be a victim of a future "bloodbath" for airlines given the uncertainty around oil prices. Certainly, the comment could be taken by investors as indicating that they should get out of the sector or at least not get into it.

Comments in widely read publications, like these two examples, can easily have an impact on the markets as investors follow their implicit advice to buy or sell. They can also be seen as forecasting future price movements. There is no doubt that good financial reporting has a reasonable track record of predicting price movements of individual stocks, though they certainly are unable to forecast turning points for the market as a whole. Similarly, economic forecasters can often be read for their thoughts on the speed with which a given indicator will continue to move in one direction, though they rarely spot the key turning points of the business cycle when slump turns into recovery or boom into recession. But with all of these commentators, it is vital to cut through the jargon, the kind of terminology spoofed below:

TODAY'S STOCK MARKET REPORT

Helium was up. Feathers were down. Paper was stationery.

Fluorescent tubing was dimmed in light trading. Knives were up sharply.

Cows steered into a bull market. Pencils lost a few points.

Hiking equipment was trailing.

Elevators rose, while escalators continued their slow decline.

Weights were up in heavy trading.

Light switches were off.

Mining equipment hit rock bottom. Diapers remained unchanged.

Shipping lines stayed at an even keel.

The market for raisins dried up.

Coca-Cola fizzled.

Caterpillar stock inched up a bit.

Sun peaked at midday.

Balloon prices were inflated.

And, Scott Tissue touched a new bottom.

Reading the *Financial Times*

The Lex column, carried on the back page of the first section of the *Financial Times* (with additional Lex comments sometimes to be found close to the relevant news in different editions) is often the first item readers turn to. Where else in the newspaper can a reader find the information he or she needs? The following is a brief overview of how the UK edition of the newspaper is arranged. The newspaper's other editions – for Asia, continental Europe and the United States – are arranged somewhat differently to reflect local interests and local constraints. For example, none of them carries the London Share Service pages; there is no managed funds service in the US edition (since the funds are not available to US citizens); and because of time differences, the Asian edition never has closing prices for the US markets.

In the UK edition, the main news and equity price information on companies and markets is to be found in the Companies & Markets. The first few pages focus on UK company news (results, key personnel, financing arrangements, takeovers, etc.) followed by similar news for overseas companies, notably in the Americas, Europe and Asia Pacific. The back page reports on the London Stock Exchange (with comments on individual

stock movements, a report on small caps and basic data on the FTSE 100) and on world equity markets.

Moving back through the newspaper, there is a collection of commentaries on leading international stock markets and on bond, currency and commodity markets; the London Share Service, with its price and key ratio details for all stocks for which there is a reasonably liquid market; and two pages of data for individual shares and indices from a range of world stock markets plus data on bonds, currencies and interest rates. This is preceded by seven pages of the *Financial Times* managed funds service, details on a variety of unit trusts and other pooled investments.

Since the Companies & Markets section of Monday's newspaper has rather less financial market news from the previous couple of days, it provides more of a survey of what has happened the previous week and what to look forward to. The London Share Service, for example, includes some longer-term data on the listed shares, as well as dialling instructions for real-time share prices from FT Cityline. Monday's *Financial Times* also carries information on the world's largest companies – the FT Global 500.

On Saturday, the format is also a little different. In addition to the company news, equity market data and the managed fund service, the FT Money section carries a wealth of articles, tables and charts relating to investment.

Markets other than the equity markets receive daily coverage in the newspaper's Companies & Markets section. The Capital Markets & Commodities page covers fixed-income securities, including government and corporate bonds plus commodities; and the Stock Markets & Currencies page covers the foreign exchange markets.

For data on the economy, there are regular reports in the first section of the newspaper and on the back page of Monday's Companies & Markets section is a diary of international economic statistics due to be released in the coming week.

All of these reports and data – plus a great deal more detailed information – are available on ft.com.

Appendix 1

The key ratios guide

Key financial ratios

PROFITABILITY

$$\text{Pre-tax profit margin (per cent)} = \frac{\text{pre-tax profit} \times 100}{\text{turnover}}$$

$$\text{Return on capital employed (per cent)} = \frac{\text{pre-tax profit} \times 100}{\text{capital employed}}$$

$$\text{Earnings per share} = \frac{\text{after-tax profit}}{\text{number of shares}}$$

GEARING

Total liabilities = long-term debt
+ current or short-term liabilities

$$\text{Balance sheet gearing or debt/equity ratio (per cent)} = \frac{\text{total liabilities} \times 100}{\text{ordinary funds}}$$

$$\text{Income gearing (per cent)} = \frac{\text{interest expense} \times 100}{\text{operating profit}}$$

$$\text{Interest cover} = \frac{\text{operating profit}}{\text{interest expense}}$$

Key shareholder ratios

YIELD

$$\text{Dividend yield (per cent)} = \frac{\text{gross dividend per share} \times 100}{\text{share price}}$$

PRICE/EARNINGS

$$\text{Price/earnings ratio} = \frac{\text{share price}}{\text{earnings per share}}$$

DIVIDEND COVER

$$\text{Dividend cover} = \frac{\text{earnings per share}}{\text{gross dividend per share}}$$

Appendix 2

The key indices guide

The FT Ordinary Share index (FT 30)

The original constituents in 1935

Associated Portland Cement
Austin Motor
Bass
Bolsover Colliery
Callenders Cables & Const.
Coats (J&P)
Courtaulds
Distillers
Dorman Long
Dunlop Rubber
Electrical & Musical Industries
Fine Spinners and Doublers
General Electric
Guest Keen & Nettlefolds
Harrods
Hawker Siddeley
Imperial Chemical Industries
Imperial Tobacco
International Tea Co.'s Stores
London Brick
Murex
Patons & Baldwins
Pinchin Johnson & Associates
Rolls-Royce
Tate & Lyle
Turner & Newall
United Steel
Vickers
Watney Combe & Reid
Woolworth (FW)

The current constituents

BG
BOC
Boots
BPLloyds
BAE Systems
British Airways
British American Tobacco
BT
Cadbury Schweppes
Compass
Diageo
EMI
GKN
GlaxoSmithKline
Hilton Group
ICI
Invensys
ITV
TSB
LogicaCMG
Marks & Spencer
P&O Steam Navigation
Prudential
Reuters
Royal & Sun Alliance
Royal Bank of Scotland
Scottish Power
Tate & Lyle
Tesco
Vodafone

The FTSE 'Footsie' 100

The original constituents in 1984

Allied–Lyons
ASDA Group
Associated British Foods
Barclays Bank
Barratt Developments
Bass
BAT Industries
Beecham Group
Berisford
BICC
Blue Circle Industries
BOC
Boots
Bowater
BPB Industries
British & Commonwealth
British Aerospace
British Elect. Traction
British Home Stores
British Petroleum
Britoil
BTR
Burton Group
Cable & Wireless
Cadbury Schweppes
Commercial Union Assurance
Consolidated Gold Fields
Courtaulds
Dalgety
Distillers
Eagle Star
Edinburgh Investment Trust
English China Clays
Exco International
Ferranti
Fisons
General Accident
General Electric
GKN
Glaxo Holdings
Globe Investment Trust
Grand Metropolitan
Great Universal Stores
Guardian Royal Exchange
Hambro Life Assurance
Hammerson Prop. Inv. & Dev.
Hanson Trust
Harrisons & Crossfield
Hawker Siddeley
House of Fraser
Imperial Chemical Industries
Imperial Cont. Gas Association
Imperial Group
Johnson Matthey
Ladbroke
Land Securities
Legal & General
Lloyds Bank
Magnet & Southerns
MEPC
MFI Furniture Group
Marks & Spencer
Midland Bank
National Westminster Bank
Northern Foods
P&O Steam Navigation
Pearson
Pilkington
Plessey
Prudential
Racal Electronics
Rank Organisation
Reckitt & Colman
Redland
Reed International
RMC

Rowntree Mackintosh
Royal Bank of Scotland
Royal Insurance
RTZ Corporation
Sainsbury
Scottish & Newcastle
Sears Holdings
Sedgwick Group
Shell
Smith & Nephew
Standard Chartered
Standard Telephone & Cables
Sun Alliance
Sun Life Assurance Society
Thorn EMI
Tarmac
Tesco
Trafalgar House
Trusthouse Forte
Ultramar
Unilever
United Biscuits
Whitbread
Wimpey

The constituents as of July 2005

3i Group
www.3i.com

Alliance & Leicester
www.alliance-leicester.co.uk

Allied UniChem
www.alliance-unichem.com

AMVESCAP
www.amvescap.com

Anglo American
www.angloamerican.co.uk

Antofagasta
www.antofagasta.co.uk

Associated British Foods
www.abf.co.uk

AstraZeneca
www.astrazeneca.com

Aviva
www.aviva.com

BAA
www.baa.co.uk

BAE Systems
www.baesystems.com

Barclays
www.barclays.co.uk

BP
www.bp.com

BPB
www.bpb.com

BG Group
www.bg-group.com

BHP Billiton
www.bhpbilliton.com

BOC
www.boc.com

Boots
www.boots-plc.com

British Airways
www.bashares.com

British American Tobacco
www.bat.co.uk

British Land
www.britishland.co.uk

BSkyB
www.sky.com

BT Group
www.bt.com

Cable & Wireless
www.cw.com

Cadbury Schweppes
www.cadburyschweppes.com

Carnival
www.carnivalcorp.com

Capita Group
www.capita.co.uk

Centrica
www.centrica.co.uk

Compass Group
www.compass-group.com

Daily Mail & Gen Trust
www.dmgt.co.uk

Diageo
www.diageo.com

Dixons
www.dixons.com

EMAP
www.emap.com

Enterprise Inns
www.enterpriseinns.com

Exel
www.exel.com

Friends Provident
www.friendsprovident.co.uk

Gallaher Group
www.gallaher-group.com

GlaxoSmithKline
www.gsk.com

GUS
www.gusplc.co.uk

Hammerson
www.hammerson.co.uk

Hanson
www.hansonplc.com

Hays
www.hays.co.uk

HBOS
www.hbosplc.com

Hilton Group
www.hiltongroup.com

HSBC
www.banking.hsbc.co.uk

ICI
www.ici.com

Imperial Tobacco
www.imperialtobacco.com

Intercontinental Hotels
www.ihgplc.com

International Power
www.internationalpowerplc.com

ITV
www.itvplc.com

Johnson Matthey
www.matthey.com

Kelda
www.keldagroup.com

Kingfisher
www.kingfisher.co.uk

Land Securities
www.landsec.co.uk

Legal & General
www.legal-and-general.co.uk

Liberty International
www.liberty-international.co.uk

Lloyds TSB
www.lloydstsb.com

Man Group
www.mangroupplc.com

Marks & Spencer
www.marksandspencer.com

Morrisons
www.morrisons.plc.uk

National Grid
www.nationalgrid.com

Next
www.next.co.uk

Northern Rock
www.nrock.co.uk

O2
www.o2.com

Old Mutual
www.oldmutual.com

Pearson
www.pearson.com

Prudential
www.prudential.co.uk

Reckitt Benckiser
www.reckitt.com

Reed Elsevier
www.reed-elsevier.com

Rentokil Initial
www.rentokil-initial.com

Reuters
www.reuters.com

REXAM
www.rexam.com

Rio Tinto
www.riotinto.com

Rolls Royce
www.rolls-royce.com

Royal & Sun Alliance
www.royalsun.com

Royal Bank of Scotland
www.rbs.co.uk

Royal Dutch Shell
www.shell.com

SABMiller
www.sabmiller.com

Sage Group
www.sage.com

Sainsbury
www.sainsbury.co.uk

Schroders
www.schroders.com

Scottish & Newcastle
www.scottish-newcastle.com

Scottish & Southern Energy
www.scottish-southern.co.uk

Scottish Power
www.scottishpower.plc.uk

Severn Trent
www.severn-trent.com

Shire Pharmaceuticals Group
www.shiregroup.com

Smith & Nephew
www.smith-nephew.com

Smiths Group
www.smiths-group.com

Standard Chartered
www.standard-chartered.com

Tate & Lyle
www.tateandlyle.com

Tesco
www.tesco.com

Unilever
www.unilever.com

United Utilities
www.unitedutilities.com

Vodafone
www.vodafone.co.uk

Whitbread
www.whitbread.co.uk

William Hill
www.williamhillplc.co.uk

Wolseley
www.wolseley.com

WPP
www.wpp.com

Xstrata
www.xstrata.com

Yell Group
www.yellgroup.com

The Dow Jones Industrial Average

The 12 original constituents in 1897

American Cotton Oil
American Spirit
American Sugar
American Tobacco
Chicago Gas
General Electric
Laclede Gas
National Lead
Pacific Mail
Standard Rope & Twine
Tennessee Coal & Iron
US Leather

The 30 constituents in 2005

3M
Alcoa
Altria
American Express
American International Group
Boeing
Caterpillar
Citigroup
Coca-Cola
DuPont
Exxon Mobil
General Electric
General Motors
Hewlett–Packard
Home Depot
Honeywell International
Intel
International Business Machines
Johnson & Johnson
JPMorgan Chase
McDonald's
Merck
Microsoft
Pfizer
Procter & Gamble
SBC Communications
United Technologies
Verizon Communications
Wal-Mart Stores
Walt Disney

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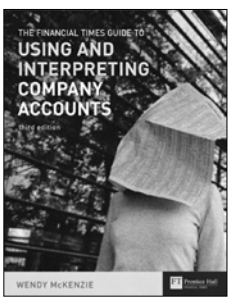

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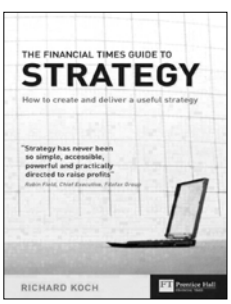

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